City of Redmond

Redmond
WASHINGTON

Agenda

Monday, August 4, 2025

4:30 PM

Special Meeting Notice and Agenda

City Hall: 15670 NE 85th St; Remote: Comcast Ch. 21/321, Ziply Ch. 34, Facebook (@CityofRedmond), Redmond.gov/rctvlive, or 510-335-7371

Committee of the Whole - Planning and Public Works

Committee Members

Melissa Stuart, Presiding Officer
Jeralee Anderson
Steve Fields
Jessica Forsythe
Vanessa Kritzer
Angie Nuevacamina
Osman Salahuddin

Meetings can be attended in person, viewed live on RCTV (redmond.gov/rctvlive), Comcast Channel 21/321, Ziply Channel 34, Facebook/YouTube (@CityofRedmond), or listen live at 510-335-7371

AGENDA

ROLL CALL

A. Action Items - 30 minutes

1. Approve On Call Survey and Mapping Services Agreement CM 25-445

Attachment A: Consulting Services Agreement

Department: Public Works, 5 minutes
Requested Action: Consent, September 2nd

2. Eastrail Partners Memorandum of Agreement CM 25-446

Attachment A: Memorandum of Agreement

Department: Parks and Recreation, 5 minutes
Requested Action: Consent, September 2nd

3. Dissolution of Community Facilities District (CFD) 2014-01 CM 25-439

Attachment A: Microsoft Petition for CFD 2014-01 Dissolution
Attachment B: CFD 2014-01 Dissolution Resolution, for CFD 2014-01 Board of Supervisors
Attachment C: CFD 2014-01 Termination Ordinance, for Redmond City Council
Attachment D: CFD 2014-01 Close Out Timeline

Department: Finance, 5 minutes
Requested Action: Consent, September 16th

4. WSDOT Regional Mobility Grant Acceptance CM 25-441

Attachment A: WSDOT Regional Mobility Grant Application
Attachment B: WSDOT Award Letter

Department: Planning and Community Development, 5 minutes
Requested Action: Consent, September 2nd

5. Bellwether Housing (Prisma) Purchase and Sale Agreement CM 25-444

Attachment A: Purchase and Sale Agreement

Department: Planning and Community Development, 5 minutes
Requested Action: Consent, September 2nd

6. 2025 Annual Code Cleanup CM 25-443

Attachment A: 2025 Annual Code Cleanup - Planning Commission Report with Appendices

Attachment B: Ordinance Amending RZC (draft)

Department: Planning and Community Development, 5 minutes
Requested Action: Consent, September 2nd

B. Feedback for Study Session - 25 minutes

1. Redmond Town Center Master Planned Development and Development Agreement -Quasi Judicial CM 25-438

Attachment A: Technical Committee Report and Recommendation

Attachment B: Draft Development Agreement and Exhibits

Department: Planning and Community Development, 10 minutes
Requested Action: Study Session, September 9th

2. Urban Centers Parking Management Existing Conditions Report CM 25-442

Attachment A: Redmond Urban Centers Parking Study

Department: Planning and Community Development, 5 minutes
Requested Action: Study Session, September 9th

3. House Bill 2015 - New Funding Mechanisms for Criminal Justice CM 25-450

Attachment A: Draft Study Session Presentation

Attachment B: HB 2015 Qualifications

Department: Finance, 10 minutes
Requested Action: Study Session, TBD

C. Informational - 10 minutes

1. Briefing on the Allocation of $1,000,000 in City Funds to Bellwether Housing's Prisma Development to Support Deeper Affordability of Housing Units CM 25-414

Attachment A: Funding Allocation to Bellwether's Affordable Housing One - Pager

Department: Planning and Community Development, 10 minutes
Requested Action: Informational

D. Read Only - N/A

ADJOURNMENT

Meeting videos are usually posted by 12 p.m. the day following the meeting at redmond.legistar.com, and can be viewed anytime on Facebook/YouTube (@CityofRedmond) and OnDemand at redmond.gov/OnDemand

15670 NE 85th Street
Redmond, WA

City of Redmond

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-445
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Public Works	Aaron Bert	425-556-2786

DEPARTMENT STAFF:

Public Works	Rob Crittenden	City Engineer
Public Works	Tom Hardy	Sr. Environmental Scientist
Public Works	Chris Stenger	Deputy Public Works Director

TITLE:
Approve On Call Survey and Mapping Services Agreement

OVERVIEW STATEMENT:
Through a standard request for qualifications (RFQ) process, Public Works teams evaluated and scored statements of qualifications submitted by consultants for on-call survey and mapping services. After awarding one of the two on-call contracts to a survey firm, that firm informed the city they were closing their offices and could not accept the offer. To maintain capacity for on-call survey services, the city offered the next highest qualified firm, David Evans and Associates, a 2-year on-call contract not to exceed $150,000, with two 1-year renewal options.

☐ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  Utility Strategic Plan, Capital Improvement Plan
- **Required:**
  Council approval is required to award an architectural and engineering services agreement that exceeds $50,000 (2018 City Resolution 1503)
- **Council Request:**
  N/A
- **Other Key Facts:**
  A request for qualifications was advertised in October 2024. The city received and evaluated seven statements

of qualifications. David Evans and Associates was ranked as the third best qualified consultant.

OUTCOMES:
The city benefits from having on-call agreements because of the efficiencies and support they provide to a wide variety of projects, programs, planning, and services. On-call agreements do not encumber budgets but are available for project managers to use with approved budget numbers on a task order basis. This provides flexibility with specialized services that are not available using City staff and shortens the turnaround time for using qualified firms for critical work.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  N/A
- **Outreach Methods and Results:**
  N/A
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:
There is no cost. This is a contracting mechanism for projects with previously approved budgets, as needed.

Approved in current biennial budget: ☐ **Yes** ☐ **No** ☒ **N/A**

Budget Offer Number:
N/A

Budget Priority:
Capital Investment Plan, Vibrant and Connected, Healthy and Sustainable

Other budget impacts or additional costs: ☐ **Yes** ☐ **No** ☒ **N/A**
If yes, explain:
N/A

Funding source(s):
There are no budget numbers encumbered by on-call contracts - only projects with approved budgets can charge to on-call contracts.

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
N/A	Item has not been presented to Council	N/A

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/2/2025	Business Meeting	Approve

Time Constraints:
Public Works is requesting this item to go forward for Council approval at the September 2, 2025, business meeting. The on-call agreement will be used starting in the fourth quarter of 2025.

ANTICIPATED RESULT IF NOT APPROVED:
Delays in project support may impact a range of design and planning across functional areas, leading to increased costs and delays in project delivery.

ATTACHMENTS:
Attachment A: On-Call Survey and Mapping Services David Evans and Associates

Consulting Services Agreement

PROJECT TITLE On-Call Surveying and Mapping Services	***EXHIBITS*** ***(List all attached exhibits - Scope of Work, Work Schedule, Payment Schedule, Renewal Options, etc.)*** Exhibit A - Scope of Work Exhibit B - Consultant Fees Exhibit C - Option for renewal
CONTRACTOR David Evans and Associates, Inc. 14432 SE Eastgate Way, Suite 400 Bellevue, WA 98007 425.519.6547	***CITY OF REDMOND PROJECT ADMINISTRATOR*** ***(Name, address, phone #)*** City of Redmond Tom Hardy 15670 NE 85th St PO Box 97010 Redmond WA 98073 twhardy@redmond.gov
CONTRACTOR'S CONTACT INFORMATION ***(Name, address, phone #)*** Adam LaPlant, PLS Associate Vice President, Senior Project Mgr aala@deainc.com 14432 SE Eastgate Way, Suite 400, Bellevue WA 98007 425.519.6547	***BUDGET OR FUNDING SOURCE*** 405.21102.00410.53151
CONTRACT COMPLETION DATE 3/20/2027 Two (2) 1-year renewal options	***MAXIMUM AMOUNT PAYABLE*** $150,000

THIS AGREEMENT is entered into on _____, 20__ between the City of Redmond, Washington, hereinafter called "the CITY", and the above person, firm or organization, hereinafter called "the CONSULTANT".

WHEREAS, the CITY desires to accomplish the above-referenced project; and

WHEREAS, the CITY does not have sufficient staff or expertise to meet the required commitment and therefore deems it advisable and desirable to engage the assistance of a CONSULTANT to provide the necessary services for the project; and

WHEREAS, the CONSULTANT has represented to the CITY that the CONSULTANT is in compliance with the professional registration statutes of the State of Washington, if applicable, and has signified a willingness to furnish consulting services to the CITY, now, therefore,

IN CONSIDERATION OF the terms and conditions set forth below, or attached and incorporated and made a part hereof, the parties agree as follows:

1. Retention of Consultant - Scope of Work. The CITY hereby retains the CONSULTANT to provide professional services as defined in this agreement and as necessary to accomplish the scope of work attached hereto as Exhibit A and incorporated herein by this reference as if set forth in full. The CONSULTANT shall furnish all services, labor and related equipment necessary to conduct and complete the work, except as specifically noted otherwise in this agreement.

2. Completion of Work. The CONSULTANT shall not begin any work under the terms of this agreement until authorized in writing by the CITY. The CONSULTANT shall complete all work required by this agreement according to the schedule attached as Exhibit B and incorporated herein by this reference as if set forth in full. A failure to complete the work according to the attached schedule, except where such failure is due to circumstances beyond the control of the CONSULTANT, shall be deemed a breach of this agreement. The established completion time shall not be extended because of any delays attributable to the CONSULTANT, but may be extended by the CITY, in the event of a delay attributable to the CITY, or because of unavoidable delays caused by circumstances beyond the control of the CONSULTANT. All such extensions shall be in writing and shall be executed by both parties.

3. Payment. The CONSULTANT shall be paid by the CITY for satisfactorily completed work and services satisfactorily rendered under this agreement as provided in Exhibit C, attached hereto and incorporated herein by this reference as if set forth in full. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work specified in the Scope of Work attached. The CONSULTANT shall be entitled to invoice

the CITY no more frequently than once per month during the course of the completion of work and services by the CONSULTANT. Invoices shall detail the work performed or services rendered, the time involved (if compensation is based on an hourly rate) and the amount to be paid. The CITY shall pay all such invoices within 30 days of submittal, unless the CITY gives notice that the invoice is in dispute. In no event shall the total of all invoices paid exceed the maximum amount payable set forth above, if any, and the CONSULTANT agrees to perform all services contemplated by this agreement for no more than said maximum amount.

4. Changes in Work. The CONSULTANT shall make such changes and revisions in the complete work provided by this agreement as may be necessary to correct errors made by the CONSULTANT and appearing therein when required to do so by the CITY. The CONSULTANT shall make such corrective changes and revisions without additional compensation from the CITY. Should the CITY find it desirable for its own purposes to have previously satisfactorily completed work or parts thereof changed or revised, the CONSULTANT shall make such revisions as directed by the CITY. This work shall be considered as Extra Work and will be paid for as provided in Section 5.

5. Extra Work.

A. The CITY may, at any time, by written order, make changes within the general scope of the agreement in the services to be performed. If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work or services under this agreement, whether or not changed by the order, or otherwise affects any other terms or conditions of the agreement, the CITY shall make an equitable adjustment in the (1) maximum amount payable; (2) delivery or completion schedule or both; and (3) other affected terms, and shall modify the agreement accordingly.

B. The CONSULTANT must submit any "proposal for adjustment" under this clause within 30 days from the date of receipt of the written order to make changes. However, if the CITY decides that the facts justify it, the CITY may receive and act upon a proposal submitted before final payment of the agreement.

C. Failure to agree to any adjustment shall be a dispute under the Disputes clause of this agreement, as provided in Section 13. Notwithstanding any such dispute, the CONSULTANT shall proceed with the agreement as changed.

D. Notwithstanding any other provision in this section, the maximum amount payable for this agreement shall not be increased or considered to be increased except by specific written amendment of this agreement.

6. Ownership of Work Product. Any and all documents, drawings, reports, and other work product produced by the CONSULTANT under this agreement shall become the property of the CITY upon payment of the CONSULTANT'S fees and charges therefore. The CITY shall have the complete right to use and re-use such work product in any manner deemed appropriate by the CITY, provided, that use on any project other than that for which the work product is prepared shall be at the CITY'S risk unless such use is agreed to by the CONSULTANT.

7. Independent Contractor. The CONSULTANT is an independent contractor for the performance of services under this agreement. The CITY shall not be liable for, nor obligated to pay to the CONSULTANT, or any employee of the CONSULTANT, sick leave, vacation pay, overtime or any other benefit applicable to employees of the CITY, nor to pay or deduct any social security, income tax, or other tax from the payments made to the CONSULTANT which may arise as an incident of the CONSULTANT performing services for the CITY. The CITY shall not be obligated to pay industrial insurance for the services rendered by the CONSULTANT.

8. Indemnity. The CONSULTANT agrees to hold harmless, indemnify and defend the CITY, its officers, agents, and employees, from and against any and all claims, losses, or liability, for injuries, sickness or death of persons, including employees of the CONSULTANT, or damage to property, arising out of any willful misconduct or negligent act, error, or omission of the CONSULTANT, its officers, agents, subconsultants or employees, in connection with the services required by this agreement, provided, however, that:

A. The CONSULTANT's obligations to indemnify, defend and hold harmless shall not extend to injuries, sickness, death or damage caused by or resulting from the sole willful misconduct or sole negligence of the CITY, its officers, agents or employees; and

B. The CONSULTANT's obligations to indemnify, defend and hold harmless for injuries, sickness, death or damage caused by or resulting from the concurrent negligence or willful misconduct of the CONSULTANT and the CITY, or of the CONSULTANT and a third party other than an officer, agent, subconsultant or employee of the CONSULTANT, shall apply only to the extent of the negligence or willful misconduct of the CONSULTANT.

9. Insurance. The CONSULTANT shall provide the following minimum insurance coverages:

A. Worker's compensation and employer's liability insurance as required by the State of Washington;

B. General public liability and property damage insurance in an amount not less than a combined single limit of two million dollars ($2,000,000) for bodily injury, including death, and property damage per occurrence.

C. Professional liability insurance, if commercially available in CONSULTANT's field of expertise, in the amount of two million dollars ($2,000,000) or more against claims arising out of work provided for in this agreement.

The amounts listed above are the minimum deemed necessary by the CITY to protect the CITY'S interests in this matter. The CITY has made no recommendation to the CONSULTANT as to the insurance necessary to protect the CONSULTANT'S interests and any decision by the CONSULTANT to carry or not carry insurance amounts in excess of the above is solely that of the CONSULTANT.

All insurance shall be obtained from an insurance company authorized to do business in the State of Washington. Excepting the professional liability insurance, the CITY will be named on all insurance as an additional insured. The CONSULTANT shall submit a certificate of insurance to the CITY evidencing the coverages specified above, together with an additional insured endorsement naming the CITY, within fifteen (15) days of the execution of this agreement. The additional insured endorsement shall provide that to the extent of the CONSULTANT's negligence, the CONSULTANT's insurance shall be primary and non-contributing as to the City, and any other insurance maintained by the CITY shall be excess and not contributing insurance with respect to the CONSULTANT's insurance. The certificates of insurance shall cover the work specified in or performed under this agreement. No cancellation, reduction or modification of the foregoing policies shall be effective without thirty (30) days prior written notice to the CITY.

10. Records. The CONSULTANT shall keep all records related to this agreement for a period of three years following completion of the work for which the CONSULTANT is retained. The CONSULTANT shall permit any authorized representative of the CITY, and any person authorized by the CITY for audit purposes, to inspect such records at all reasonable times during regular business hours of the CONSULTANT. Upon request, the CONSULTANT will provide the CITY with reproducible copies of any such records. The copies will be provided without cost if required to substantiate any billing of the CONSULTANT, but the CONSULTANT may charge the CITY for copies requested for any other purpose.

11. Notices. All notices required to be given by either party to the other under this Agreement shall be in writing and shall be given in person or by mail to the addresses set forth in the box for the same appearing at the outset of this Agreement. Notice by mail shall be deemed given as of the date the same is deposited in the United States mail, postage prepaid, addressed as provided in this paragraph.

12. Project Administrator. The Project Administrator shall be responsible for coordinating the work of the CONSULTANT, for providing any necessary information for and direction of the CONSULTANT's work in order to ensure that it meets the requirements of this Agreement, and for reviewing, monitoring and approving the quality and quantity of such work. The CONSULTANT shall report to and take any necessary direction from the Project Administrator.

13. Disputes. Any dispute concerning questions of fact in connection with the work not disposed of by agreement between the CONSULTANT and the CITY shall be referred for resolution to a mutually acceptable mediator. The parties shall each be responsible for one-half of the mediator's fees and costs.

14. Termination. The CITY reserves the right to terminate this agreement at any time upon ten (10) days written notice to the CONSULTANT. Any such notice shall be given to the address specified above. In the event that this agreement is terminated by the City other than for fault on the part of the CONSULTANT, a final payment shall be made to the CONSULTANT for all services performed. No payment shall be made for any work completed after ten (10) days following receipt by the CONSULTANT of the notice to terminate. In the event that services of the CONSULTANT are terminated by the CITY for fault on part of the CONSULTANT, the amount to be paid shall be determined by the CITY with consideration given to the actual cost incurred by the CONSULTANT in performing the work to the date of termination, the amount of work originally required which would satisfactorily complete it to date of termination, whether that work is in a form or type which is usable to the CITY at the time of termination, the cost of the CITY of employing another firm to complete the work required, and the time which may be required to do so.

15. Non-Discrimination. The CONSULTANT agrees not to discriminate against any customer, employee or applicant for employment, subcontractor, supplier or materialman, because of race, creed, color, national origin, sex, religion, honorable discharged veteran or military status, familial status, sexual orientation, age, or the presence of any sensory, mental, or physical disability or the use of a trained dog or service animal by a person with a disability, except for a bona fide occupational qualification. The CONSULTANT understands that if it violates this provision, this Agreement may be terminated by the CITY and that the CONSULTANT may be barred from performing any services for the CITY now or in the future.

16. Compliance and Governing Law. The CONSULTANT shall at all times comply with all applicable federal, state, and local laws, rules, ordinances, and regulations. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington.

17. Subcontracting or Assignment. The CONSULTANT may not assign or subcontract any portion of the services to be provided under this agreement without the express written consent of the CITY. Any sub-consultants approved by the CITY at the outset of this agreement are named on separate Exhibit attached hereto and incorporated herein by this reference as if set forth in full.

18. Non-Waiver. Payment for any part of the work or services by the CITY shall not constitute a waiver by the CITY of any remedies of any type it may have against the CONSULTANT for any breach of the agreement by the CONSULTANT, or for failure of the CONSULTANT to perform work required of it under the agreement by the CITY. Waiver of any right or entitlement under this agreement by the CITY shall not constitute waiver of any other right or entitlement.

19. Litigation. In the event that either party deems it necessary to institute legal action or proceedings to enforce any right or obligation under this agreement, the parties agree that such actions shall be initiated in the Superior Court of the State of Washington, in and for King County. The parties agree that all questions shall be resolved by application of Washington law and that parties to such actions shall have the right of appeal from such decisions of the Superior Court in accordance with the law of the State of Washington. The CONSULTANT hereby consents to the personal jurisdiction of the Superior Court of the State of Washington, in and for King County. The prevailing party in any such litigation shall be entitled to recover its costs, including reasonable attorney's fees, in addition to any other award.

20. Taxes. The CONSULTANT will be solely responsible for the payment of any and all applicable taxes related to the services provided under this agreement and if such taxes are required to be passed through to the CITY by law, the same shall be duly itemized on any billings submitted to the CITY by the CONSULTANT.

21. City Business License. The CONSULTANT has obtained, or agrees to obtain, a business license from the CITY prior to commencing to perform any services under this agreement. The CONSULTANT will maintain the business license in good standing throughout the term of this Agreement.

22. Entire Agreement. This agreement represents the entire integrated agreement between the CITY and the CONSULTANT, superseding all prior negotiations, representations or agreements, written or oral. This agreement may be modified, amended, or added to, only by written instrument properly signed by both parties hereto. These standard terms and conditions set forth above supersede any conflicting terms and conditions on any attached and incorporate exhibit. Where conflicting language exists, the CITY'S terms and conditions shall govern.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

CONSULTANT:

By: _____
Title: _____

CITY OF REDMOND:

_____
Angela Birney, Mayor
DATED: _____

ATTEST/AUTHENTICATED:

_____
City Clerk, City of Redmond

APPROVED AS TO FORM:

_____
Office of the City Attorney

Exhibit A – Scope of Work

On-Call Surveying and Mapping Services

The scope of services being sought is Task Order-based Surveying and mapping services that would support the City of Redmond (City) Public Works and Planning Departments.

Scope of Services:

This project will be a non-exclusive continuing services contract to assist the City in working on Public Works and Planning (Development Services) projects. The consultant will serve as a partner to the City in order to expand the capability of Redmond staff in providing specialized surveying and mapping related services in support of projects to the community.

The scope of work for this contract will vary as need arises and will be at the discretion of the City. Survey requests may include, but are not limited to, topographic surveys, construction staking, property line surveys, easement surveys, and manhole invert surveys. Survey data may be provided directly to staff or to a separate design consultant. Construction staking requests maybe needed within 1-2 days notification. Surveying may be needed in difficult terrain such as steep ravines and near creeks.

The work included in this contract would include, but not be limited to:

- Determine locations of property lines, boundaries, easements and rights-of-way.
- Construction survey for new and improvement projects.
- Establish and adjust benchmarks.
- Establish and monument street center lines
- Traditional topographic surveys to determine locations and elevations of existing improvements, structures, and topographic features.
- Perform research and survey work related to public and private land ownership.
- Prepare and interpret deeds and descriptions.
- Develop legal descriptions and boundary maps.
- Capture critical area delineation flag locations.
- Other survey related tasks as necessary.
- Site Surveys
- Boundary Surveys
- Record of Surveys
- Boundary Line Adjustments

Task Order Administration:

There will be no specific limitation on the quantity, minimum and/or maximum value of individual task orders. Tom Hardy or his designated representative will administer each task order from the Public Works Department of the City.

A. Period of Performance and Contract Value

The contract will be for a period of performance of two (2) years, with the option to renew for two (2) one year renewals. The schedule and period of each task order agreement will be separately negotiated and defined.

The maximum value of this contract will not exceed one hundred and fifty thousand dollars ($150,000) for the duration of the contract; however, there is no guarantee that the City will expend the entire value of this contract. Specifically, the City does not guarantee that the consultant will receive a specified volume of work, a specific total contract amount, or a specific task order value. The value of the contract could potentially be increased through supplemental agreements. The work will be conducted through task orders for specific pieces of work.

B. Consultant Resources and Time

Specific work under this contract will be performed on a task order basis consisting of individually negotiated task orders. Each task order will provide a specific scope, budget, and schedule of the services required.

The consultant will be expected to respond to short notice requests for technical services to resolve urgent task orders. The consultant should be capable of performing urgent task order assignments while working on several other task orders simultaneously. Consultant task orders will be coordinated with on-going work being performed by the City.

C. Task Order Process

1. For each individual task order, the project manager will issue a written or verbal "Task Order Request" to the consultant. The task request will describe the nature and extent of the project, its scope & preliminary schedule.
2. Within five (5) calendar days of the time frame specified in the "task order request", the consultant will prepare a proposal that includes an applicable scope of work, schedule, and fees as well as identify key staff assignments and potential sub consultants.
3. The consultant and project manager will determine the detailed scope of work, project schedule, consultant fee, and other project management details.
4. The project manager will provide a final approval of the task order with a signed task order sheet
5. The consultant will be paid on the basis of approved monthly invoices. Task orders will be invoiced in a manner to allow costs to be identified by work performed under separate task orders.

The Project Manager will issue a written task release when work on a specific task order is complete and final payment for that task is authorized.

Exhibit B

Consultant Fee Determination

Project Name: City of Redmond On-Call Survey
Project Number:
Consultant: David Evans and Associates, Inc.

NEGOTIATED HOURLY RATES

Classification	Hours	DSC	Overhead 177%	Fee (Profit) 32%	Total Hourly Rate	Total
Survey Manager		$ 80.00	$141.81	$25.76	$248	
Sr. Project Surveyor		$ 74.00	$131.17	$23.83	$229	
Project Surveyor		$ 68.00	$120.54	$21.90	$210	
Sr. Geospatial Tech		$ 62.00	$109.90	$19.96	$192	
Geospatial Tech		$ 55.00	$97.49	$17.71	$170	
Office Survey Tech		$ 42.00	$74.45	$13.52	$130	
CAD Tech		$ 35.00	$62.04	$11.27	$108	
Sr. Party Chief		$ 55.00	$97.49	$17.71	$170.20	
Party Chief		$ 45.00	$79.77	$14.49	$139.26	
Sr. Field Survey Tech		$ 37.00	$65.59	$11.91	$114.50	
Field Survey Tech		$ 30.00	$53.18	$9.66	$92.84	
Sr. Remote Pilot		$ 60.00	$106.36	$19.32	$185.68	
Remote Pilot		$ 50.00	$88.63	$16.10	$154.73	
Project Coordinator		$ 45.00	$79.77	$14.49	$139.26	
Project Controls Specialist		$ 54.00	$95.72	$17.39	$167.11	
Total Hours					**Subtotal:**	

REIMBURSABLES

Mileage (Current GSA Rate)	
Static Laser Scanner ($590 per day)	
Mobile Laser Scanner ($5000 per day)	
sUAS LiDAR ($3500 per day)	
Hotel / Meal Per Diem (Current GSA Rate)	
Subtotal:	

SUBCONSULTANT COSTS (See Exhibit E)

Subtotal:	

Total:

Contingency:

GRAND TOTAL:

On-Call Survey and Mapping Services

Exhibit C – Option for Renewal

The City reserves the right to renew this contract for two (2) additional one-year renewal terms, for a potential maximum total term of four (4) years, upon serving notice to Consultant within thirty (30) calendar days prior to expiration. If a renewal provision is exercised, all terms and conditions of original contract shall remain in full force and effect. A renewal will be accomplished through a separate contract with reference to the original contract. Acceptance of a renewal offer will be by mutual agreement of both parties. The Mayor or designee is authorized to exercise this renewal option.

Should the City exercise a renewal option, the City and Consultant may discuss any necessary changes to services and will confirm price/rates prior to each renewal. Consultant shall notify the City in writing at least thirty (30) days prior to any proposed price adjustment. Acceptance of such a request will be at the sole discretion of the City.

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-446
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Parks	Loreen Hamilton	425-979-8280

DEPARTMENT STAFF:

Parks	Lindsey Falkenburg	Parks Planning Manager

TITLE:
Eastrail Partners Memorandum of Agreement

OVERVIEW STATEMENT:
The purpose of this Memorandum of Agreement ("MOA") is to affirm a ten-year commitment among the cities and King County who work collaboratively on the Eastrail project to support the performance of an initial two-year Scope of Services by Eastrail Partners through funding provided by said entities.

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  PARCC Plan, Redmond 2050
- **Required:**
  Per Washington State Law (RCW 39.34.030(1)) all interlocal agreements (MOUs/MOAs) must be approved by City Council.
- **Council Request:**
  N/A
- **Other Key Facts:**
  N/A

OUTCOMES:
Eastrail Partners is a nonprofit entity who collaborate with the communities, advocate for trail funding, and mobilize the private sector to assist local governments and King County to build the envisioned fully connected 42-mile Eastrail Trail

System.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  NA
- **Outreach Methods and Results:**
  NA
- **Feedback Summary:**
  NA

BUDGET IMPACT:

Total Cost:
$13,321

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
100.50100.00410.57121

Budget Priority:
Healthy and Sustainable

Other budget impacts or additional costs: ☐ **Yes** ☒ **No** ☐ **N/A**
If yes, explain:
N/A

Funding source(s):
One Time Funds in 2025-2026 Budget

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
N/A	Item has not been presented to Council	N/A

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/2/2025	Business Meeting	Approve

Time Constraints:
N/A

ANTICIPATED RESULT IF NOT APPROVED:
City of Redmond will no longer be recognized as a partner on the Eastrail Project.

ATTACHMENTS:
Attachment A: Memorandum of Agreement by and Between King County, The City of Bellevue, The City of Kirkland, The City of Redmond, The City of Renton, and The City of Woodinville Regarding Providing Funding for a Scope of Services to be Performed by Eastrail Partners

MEMORANDUM OF AGREEMENT BY AND BETWEEN KING COUNTY, THE CITY OF BELLEVUE, THE CITY OF KIRKLAND, THE CITY OF REDMOND, THE CITY OF RENTON, AND THE CITY OF WOODINVILLE REGARDING PROVIDING FUNDING FOR A SCOPE OF SERVICES TO BE PERFORMED BY EASTRAIL PARTNERS

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1. Purpose:

The purpose of this Memorandum of Agreement ("MOA") is to affirm a ten (10) year commitment among the Parties to support the performance of an initial two-year Scope of Services by Eastrail Partners through funding from the Parties and to timely and regularly consider future extensions of this funding support to Eastrail Partners for newly identified Scopes of Service.

2. Parties:

Certain local government members of the Eastrail Regional Advisory Council ("RAC"), including King County, the City of Woodinville, the City of Redmond, the City of Kirkland, the City of Bellevue, and the City of Renton are entering into this MOA, and are collectively referred to herein as the "Parties".

3. Term:

The term of this MOA shall begin on the date the last signature is affixed to this MOA and shall terminate on December 31, 2034.

4. Background:

The Eastrail corridor is an approximately 42 mile long railbanked corridor in east King and Snohomish County and co-located in the Cities of Woodinville, Redmond, Kirkland, Bellevue, and Renton (see Exhibit A).

The Eastrail RAC was created in December 2012, through King County Council Motion 13801, as a collaborative group to coordinate the various efforts to develop the corridor. In 2022, King County Council Motion 16154 expanded the membership and purpose of the RAC. Current Eastrail RAC membership includes King County; Snohomish County; the Cities of Bellevue, Kirkland, Redmond, Renton, and Woodinville; Sound Transit; Puget Sound Energy; and the Eastside Greenway Alliance.

Eastrail Partners ("EP") is a 501c3 nonprofit organization incorporated on July 8, 2019 under the Washington Nonprofit Corporation Act, Chapter 24.03 of the Revised Code of Washington (see Exhibit B). EP was formed to play and is playing a unique and valuable role in the development of the corridor by fostering, increasing, leveraging, and sustaining private sector and community support for strategic and timely actions to implement the RAC vision for the corridor.

The RAC and EP have executed prior service and funding agreements that outlined cost-sharing, roles, and responsibilities. Through coalition building, advocacy for trail funding, private sector

engagement, and community collaboration EP has successfully delivered on RAC priorities since 2019. The RAC seeks to build on the proven track record of effective performance by EP and anticipates an ongoing need over the next decade for the timely support of EP in implementing additional high priority actions that aid in achieving the RAC's vision for the corridor.

5. Actions Agreed to by the Parties

a. The Parties will individually provide funding support for implementation by EP of the high priority actions identified by the RAC in its quarterly meetings in July and October 2024 (see Exhibit C).

b. Subsequent to the execution of this MOA, the Parties will execute appropriate agreements between the Parties, individually or in collaboration with other willing Parties, and EP to allow the provision of funding by the Parties to EP for specified scopes of services outlined in the agreements and to be performed in years 2025 and 2026. These agreements will be guided by the funding allocations developed collaboratively by the RAC for the purpose of this cost sharing effort (see Exhibit D).

c. The Parties intend for this MOA to (A) provide clarity around cost sharing, roles and responsibilities for the next ten (10) years; and (B) on a biannual basis beginning in 2026 and ending in 2032, work within the RAC structure and associated processes to evaluate the need for and value of providing additional funding to EP to undertake high priority actions identified by the RAC in support of corridor development, and then consider new funding allocation for EP as appropriate.

6. Separate but Aligned Agreements by Puget Sound Energy and Sound Transit with EP

RAC members Puget Sound Energy and Sound Transit are not parties to this MOA but will instead, and in alignment with the purposes of this MOA, execute separate respective agreements with EP to affirm their commitments and anticipated scope of services that address the RAC's high priority actions and to affirm the provision of their respective funding amounts to EP.

7. Future Funding Commitments:

The Parties agree that this MOA can be amended as needed to address new commitments among the Parties to address any changes in high priority actions or overriding goals for EP as well as to address any concerns related to the performance of EP.

8. Adding new Parties to the MOA:

Additional entities may be added as Parties to this MOA with the written agreement of the Parties to this MOA at that time.

9. Termination by a Party:

A Party can terminate its participation in this MOA by providing written notice of termination to all other Parties to the MOA. This notice will include a 30-day period, starting at receipt of the notice by the Parties, before the termination becomes effective. The terminating Party will be responsible for meeting any related funding commitments, as identified in Exhibit D and addressed under separate agreements, up to the effective date of the notice of termination. The Parties remaining in the MOA after any termination have the discretion to evaluate the impact of any termination on the integrity of the MOA and identify and implement any necessary measures to address impacts of a termination.

10. Exhibits

A. Eastrail corridor map
B. Eastrail Partners incorporation document
C. Slide from October 2024 RAC meeting noting RAC priorities for scope items
D. Funding allocations table

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The Parties acknowledge and agree that this document may be executed by electronic signature, which shall be considered as an original signature for all purposes and shall have the same force and effect as an original signature.

The Parties agree to the terms and conditions in this MOA:

KING COUNTY Signed:_____Date:_____ By (print): _____ Parks and Recreation Division Director Attn: Warren Jimenez King County Department of Natural Resources and Parks 201 S. Jackson Street Suite 500 Seattle, WA 98104-3855	**CITY OF BELLEVUE** Signed:_____Date:_____ By (print): _____ Andrew Singelakis Transportation Director City of Bellevue 450 110th Ave NE Bellevue WA 98004
CITY OF KIRKLAND Signed:_____Date:_____ By (print): _____ City of Kirkland 123 5th Avenue Kirkland, WA 98033	**CITY OF REDMOND** Signed:_____Date:_____ By (print): _____ Angela Birney Mayor City of Redmond 15670 NE 85th St Redmond, WA 98052-9710
CITY OF RENTON Signed:_____Date:_____ By (print): _____ Armondo Pavone Mayor City of Renton 1055 S. Grady Way Renton, WA 98057	**CITY OF WOODINVILLE** Signed:_____Date:_____ By (print): _____ Brandon Buchanon City Manager City of Woodinville 17301 133rd Ave NE Woodinville, WA 98072

Exhibits

EXHIBIT A – Eastrail Corridor map

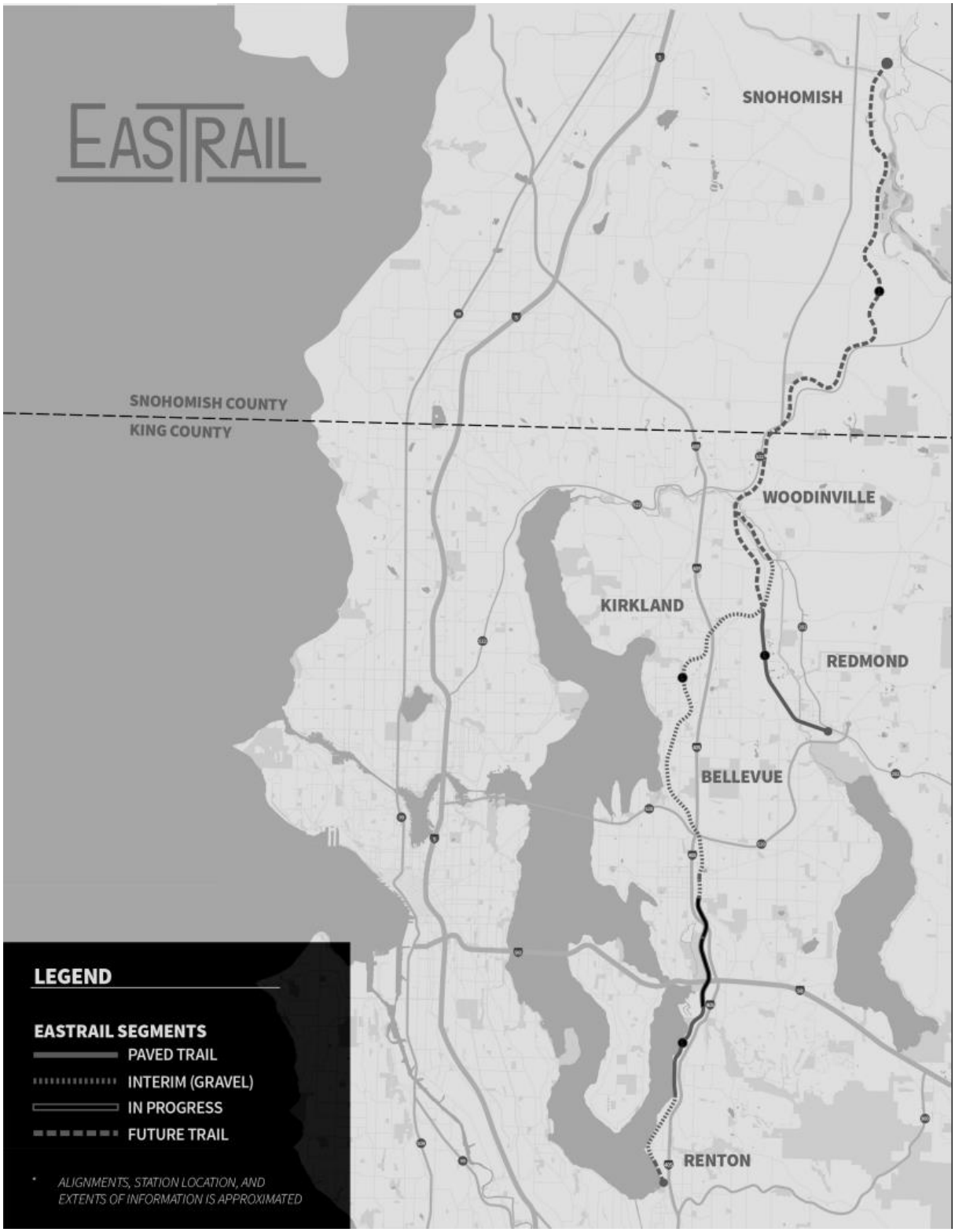

EXHIBIT B – Eastrail Partners incorporation document

UNITED STATES OF AMERICA

The State of Washington

Secretary of State

I, KIM WYMAN, Secretary of State of the State of Washington and custodian of its seal, hereby issue this

ARTICLES OF INCORPORATION

to

EASTRAIL PARTNERS

A WA NONPROFIT CORPORATION, effective on the date indicated below.

Effective Date: 07/15/2019
UBI Number: 604 478 743

Given under my hand and the Seal of the State of Washington at Olympia, the State Capital

Kim Wyman, Secretary of State

Date Issued: 07/15/2019

EXHIBIT C – Slide from July 2024 RAC meeting noting RAC priorities for scope items

Status Update on the RAC/EP Interlocal Agreement

RAC Consensus for Affirmation (based on RAC discussion in April and July):

- Scope of services for 2025-2026 includes:
  - Continued shared communications and community collaborations (50%)
  - Coalition building and advocacy for trail funding and construction needs (50%)

- Funding amounts as shown in this table:

PROPOSED 2025-2026 Funding Allocations for Eastrail Partners' Service Agreement

					$ 200,000.00
	Total fee owned corridor miles	Jurisdiction stakeholder miles	Easement Miles	Shares/percentage	EP Funding (derived by formula)
Fee Interests					
Kirkland	5.75			9.82	$ 19,640.68
Redmond	3.9			6.66	$ 13,321.50
Woodinville	2.6			4.44	$ 8,881.00
King County	15.8			26.98	$ 53,969.16
Snohomnish County	12			20.49	$ 40,989.24
Sound Transit - fee	1.1			1.88	$ 3,757.35
	41.15			70.28	
Easement Interests					
PSE			29.15	10.00	$ 20,000.00
Sound Transit - easement			25.25	10.00	$ 20,000.00
				20.00	
Stakeholder Jurisdiction Interests					
Bellevue		7.5		7.29	$ 14,580.80
Renton		2.5		2.43	$ 4,860.27
		10		9.72	$ 200,000.00
				100.00	

- Funding commitments and Eastrail Partners scope of services are only for calendar years 2025 and 2026 (i.e., the next biennium for the majority of the local governments providing funding)

October 17, 2024

EXHIBIT D – Funding allocations table

Funding Entity	2025-2026 Funding Allocation
King County	$ 53,969.16
City of Bellevue	$ 14,580.80
City of Kirkland	$ 19,640.68
City of Redmond	$ 13,321.50
City of Renton	$ 4,860.27
City of Woodinville	$ 8,881.00

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-439
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Finance	Kelley Cochran	425-556-2748

DEPARTMENT STAFF:

N/A	N/A	N/A

TITLE:
Dissolution of Community Facilities District (CFD) 2014-01

OVERVIEW STATEMENT:
Community Facilities District (CFD) 2014-01 was established on July 15, 2014, via Resolution No. 1411 as a partnership between the City of Redmond, Microsoft, and Sound Transit to fund and construct improvements at the Overlake Transit Center (OTC), including a pedestrian bridge over SR 520 and 156th Avenue NE.

On April 15, 2025, Microsoft petitioned the CFD for dissolution (attachment A) because the only outstanding deliverables, digital wayfinding elements at the Redmond Technology Station, were determined to be addressed through other means not requiring the CFD.

During the July 15, 2025, CFD 2014-01 special meeting, the CFD 2014-01 Board of Supervisors discussed the dissolution of CFD 2014-01 and agreed to move forward closing out CFD 2014-01.

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☐ **Provide Direction** ☒ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  CFD 2014-01 Formation and Commitment to Fund documentation.
- **Required:**
  Community Facilities Districts are governed under RCW 36.145.
- **Council Request:**
  N/A
- **Other Key Facts:**

N/A

OUTCOMES:
During the September 2, 2025, CFD 2014-01 meeting, the CFD 2014-01 Board of Supervisors will consider a resolution (attachment B) to dissolve CFD 2014-01. If this resolution is passed by the CFD 2014-01 Board of Supervisors, the Redmond City Council will receive a copy of this resolution and a request to pass an ordinance formally dissolving CFD 2014-01 and returning the remaining funds to Microsoft.

During the September 16, 2025, business meeting, the Redmond City Council will be asked to consider an ordinance (attachment C) ratifying and affirming termination of CFD 2014-01 and amending the Redmond Municipal Code (RMC) to repeal Chapter 3.95, Community Facility District No. 2014-1.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  N/A
- **Outreach Methods and Results:**
  N/A
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:
N/A

Approved in current biennial budget: ☐ **Yes** ☐ **No** ☒ **N/A**

Budget Offer Number:
N/A

Budget Priority:
N/A

Other budget impacts or additional costs: ☐ **Yes** ☐ **No** ☒ **N/A**
If yes, explain:
N/A

Funding source(s):
N/A

Budget/Funding Constraints:
N/A

☒ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
N/A	Item has not been presented to Council	N/A

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/16/2025	Business Meeting	Approve

Time Constraints:
N/A

ANTICIPATED RESULT IF NOT APPROVED:
CFD 2014-01 would not be fully terminated and would remain part of the Redmond Municipal Code as Chapter 3.95.

ATTACHMENTS:
Attachment A: Microsoft Petition for CFD 2014-01 Dissolution
Attachment B: CFD 2014-01 Dissolution Resolution, for CFD 2014-01 Board of Supervisors
Attachment C: CFD 2014-01 Termination Ordinance, for Redmond City Council
Attachment D: CFD 2014-01 Close Out Timeline

Microsoft

April 25, 2025

VIA E-MAIL

Melissa Stuart, Chairman of Board of Supervisors
Community Facility District No. 2014-1
City of Redmond
15670 NE 85th Street
Redmond, WA 98073

Re: CFD 2014-1

Dear Supervisor Stuart:

Although Community Facility District No. 2014-1 was amended in September of 2024 to add digital wayfinding elements to Redmond Technology Station, subsequent analysis of the wayfinding issue has led Microsoft to the conclusion that the wayfinding issue is best addressed through other means. Therefore, the wayfinding elements added to CFD 2014-1 will not be built.

Since all the other projects for which CFD 2014-1 was formed have been constructed and paid for, Microsoft Corporation, as the sole property owner in CFD 2014-1, hereby requests that CFD 2014-1 be terminated and the excess funds in CFD 2014-1 be returned to Microsoft as provided in RMC 3.95.040. Microsoft thanks the City and all the former and present Supervisors for the care and attention paid to the administration of Community Facility District No. 2014-1.

Sincerely,

MICROSOFT CORPORATION

By: _____
Name: Steph Longstreth
Its: General Manager

cc: Board of Supervisors
Mayor Birney
Malisa Files
Kelley Cochran
Daniel Kenny

REDMOND COMMUNITY FACILITIES DISTRICT NO. 2014-01
RESOLUTION NO. XXX

A RESOLUTION OF THE REDMOND COMMUNITY FACILITIES DISTRICT NO. 2014-01 RECOMMENDING APPROVAL OF PETITION BY MICROSOFT CORPORATION TO DISSOLVE REDMOND COMMUNITY FACILITIES DISTRICT NO. 2014-01; MAKING FINDINGS IN SUPPORT OF THE DISSOLUTION; AND REQUESTING THE REMAINING BALANCE TO BE REPAID TO MICROSOFT CORPORATION

WHEREAS, Resolution No. 1411 (AM) of the City of Redmond, passed by the City Council on July 15, 2014, formed Redmond Community Facilities District ("CFD") No. 2014-01 for the purpose of financing the construction of a pedestrian/bicycle bridge connection from the east side of 156th Avenue NE to the Overlake Transit Center and to the West side of SR 520, and the construction of canopy coverage for waiting areas at the Overlake Transit Center; and

WHEREAS, Resolution No. 1417 of the City of Redmond, passed by the City Council on November 18, 2014, approved an amended petition from Microsoft Corporation for Redmond CFD No. 2014-01 which altered the purpose of the CFD to add construction of additional identified improvements; and

WHEREAS, Resolution No. 1590 of the City of Redmond, passed by the City Council on September 17, 2024, approved an amended petition from Microsoft Corporation for Redmond CFD No. 2014-01 which again

altered the purpose of the CFD to add expanded financing of additional identified improvements; and

WHEREAS, on April 25, 2025, Microsoft petitioned the CFD for dissolution because the only outstanding deliverables, digital wayfinding elements at the Redmond Technology Station, were determined to be addressed through other means not requiring the CFD.

NOW, THEREFORE, REDMOND COMMUNITY FACILITIES DISTRICT NO. 2014-01 HEREBY RESOLVES AS FOLLOWS:

Section 1. Findings.

(A) The petition to dissolve Community Facilities District No. 2014-01 was received by the District on April 25, 2025, and was signed by Microsoft, which owns one hundred percent (100%) of the land within CFD No. 2014-01.

(B) All improvements identified for completion under the CFD have either been completed or will be addressed through other means.

(C) All invoices of the CFD have been paid.

(D) All assessments have been paid and expended, or the balance will be repaid to Microsoft under the Commitment to Fund.

(E) The CFD is no longer needed, and Microsoft's request for dissolution should be granted.

(F) The recitals outlined above are hereby incorporated by reference as findings in support of the dissolution of Community Facilities District No. 2014-01.

Section 2. Dissolution. The Board of Supervisors ("The Board") of Community Facilities District No. 2014-01 finds that the CFD should be dissolved. The Board hereby requests that the Redmond City Council consider and approve an ordinance officially dissolving the CFD.

Section 3. Transfer of Balance. The Board of Supervisors of Community Facilities District No. 2014-01 recommends that the CFD balance remaining as of the date of the dissolution of Community Facilities District No. 2014-01 by the Redmond City Council should be transferred to Microsoft Corporation as the original, sole funder of the District.

Section 4. Effective Date. This resolution will be effective immediately upon passage.

ADOPTED by the Board of Supervisors of Community Facilities District No. 2014-01 this _____ day of _____, 2025.

BOARD OF SUPERVISORS OF COMMUNITY FACILITIES DISTRICT No. 2014-01

_____
MELISSA STUART, CHAIR

CODE

CITY OF REDMOND
ORDINANCE NO. XXXX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON, APPROVING A PETITION BY MICROSOFT CORPORATION TO DISSOLVE REDMOND COMMUNITY FACILITIES DISTRICT NO. 2014-01; MAKING FINDINGS IN SUPPORT OF THE DISSOLUTION; PROVIDING FOR THE REMAINING BALANCE TO BE REPAID TO MICROSOFT CORPORATION; REPEALING CHAPTER 3.95 OF THE REDMOND MUNICIPAL CODE; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, Resolution No. 1411 (AM) of the City of Redmond, passed by the City Council on July 15, 2014, formed Redmond Community Facilities District ("CFD") No. 2014-01 for the purpose of financing the construction of a pedestrian/bicycle bridge connection from the east side of 156th Avenue NE to the Overlake Transit Center and to the West side of SR 520, and the construction of canopy coverage for waiting areas at the Overlake Transit Center; and

WHEREAS, Resolution No. 1417 of the City of Redmond, passed by the City Council on November 18, 2014, approved an amended petition from Microsoft Corporation for Redmond CFD No. 2014-01 which altered the purpose of the CFD to add construction of additional identified improvements; and

WHEREAS, Resolution No. 1590 of the City of Redmond, passed by the City Council on September 17, 2024, approved an amended

petition from Microsoft Corporation for Redmond CFD No. 2014-01 which again altered the purpose of the CFD to add expanded financing of additional identified improvements; and

WHEREAS, on April 25, 2025, Microsoft petitioned the CFD for dissolution because the only outstanding deliverables, digital wayfinding elements at the Redmond Technology Station, were determined to be addressed through other means not requiring the CFD; and

WHEREAS, on September 2, 2025, the Community Facilities District No. 2014-01 considered and approved a resolution finding that the CFD should be dissolved and submitted a request to the Redmond City Council to pass an ordinance formally dissolving the CFD and returning the remaining funds to Microsoft.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Classification. Section 5 of this ordinance is of a general and permanent nature and shall become a part of the city code.

Section 2. Findings.

A) The petition to dissolve Community Facilities District No. 2014-01 was received by the District on April 25, 2025, and was signed by Microsoft, which owns one hundred percent (100%) of the land within CFD No. 2014-01.

B) All improvements identified for completion under the CFD have either been completed or will be addressed through other means.

C) All invoices of the CFD have been paid.

D) All assessments have been paid and expended, or the balance will be repaid to Microsoft under the Commitment to Fund.

E) The CFD is no longer needed, and Microsoft's request for dissolution should be granted.

F) The recitals outlined above are hereby incorporated by reference as findings in support of the dissolution of Community Facilities District No. 2014-01.

Section 3. Dissolution. Community Facilities District No. 2014-01 is hereby dissolved. The Mayor and Finance Director, of their designees, are hereby empowered to take any necessary actions to accomplish the complete dissolution of Community Facilities District No. 2014-01.

Section 4. Transfer of Balance. The CFD balance remaining as of the date of the dissolution of Community Facilities District No. 2014-01 shall be transferred to Microsoft Corporation as the original, sole funder of the District.

Section 5. Repeal of Chapter 3.95 Redmond Municipal Code (RMC). Chapter 3.95 RMC is hereby repealed in its entirety.

CHAPTER 3.95 ~~[COMMUNITY FACILITY DISTRCIT NO. 2014-1]~~

REPEALED.

~~[3.95.010 FUND CREATED.~~

~~A. A FUND TO BE KNOWN AS THE "COMMUNITY FACILITY DISTRICT NO. 2014-1" IS HEREBY CREATED AS A CAPITAL IMPROVEMENT FUND AND SHALL BE SPECIFICALLY PROVIDED FOR IN THE CITY'S BUDGET FOR REPORTING PURPOSES. (ORD. 2867 § 2 (PART), 2017).~~

~~3.95.020 PURPOSE.~~

~~THE PURPOSE OF THE COMMUNITY FACILITY DISTRICT NO. 2014-1 FUND SHALL BE TO MANAGE AND ACCOUNT FOR THE FINANCIAL ACTIVITY RELATED TO THE IMPROVEMENTS SPECIFIED IN THE OVERLAKE TRANSIT CENTER (OTC) AGREEMENT BETWEEN THE CITY, MICROSOFT, SOUND TRANSIT AND COMMUNITY FACILITY DISTRICT NO. 2014-1 AS AUTHORIZED BY THE REVISED CODE OF WASHINGTON (RCW) 36.145. (ORD. 2867 § 2 (PART), 2017).~~

~~3.95.030 EXPENDITURES AUTHORIZED.~~

~~A. EXPENDITURES FROM THE FUND SHALL BE AUTHORIZED IN THE BUDGET FOR THE FOLLOWING PURPOSES:~~

~~1. DEFERRED INFLOWS RELATED TO MICROSOFT'S INVESTMENT IN THE CFD AND SPECIFIED IN THE OVERLAKE TRANSIT CENTER AGREEMENT AND COMMUNITY FACILITY DISTRICT NO. 2014-1 AUTHORIZING DOCUMENTS,~~

~~2. EXPENDITURES RELATED TO PROJECT REIMBURSEMENTS TO DESIGN AND CONSTRUCT PROJECT ELEMENTS, INCLUDING A PED-BIKE BRIDGE AND EXPANDED CANOPY COVERAGE FOR TRANSIT WAITING AREAS AS INCLUDED IN THE SOUND TRANSIT EAST LINK PROJECT OR ADMINISTRATIVE EXPENSES RELATED TO THE COMMUNITY FACILITIES DISTRICT OPERATIONS, OR~~

~~3. TRANSFER TO A CAPITAL FUND AS DIRECTED BY THE COMMUNITY FACILITY DISTRICT BOARD OF SUPERVISORS. (ORD. 2867 § 2 (PART), 2017).~~

~~3.95.040 UNEXPENDED FUNDS.~~

~~A. ANY UNEXPENDED FUNDS REMAINING IN THE COMMUNITY FACILITY DISTRICT NO. 2014-1 FUND AT THE END OF ANY FISCAL YEAR SHALL REMAIN IN SAID FUND AND SHALL NOT LAPSE; BUT SHALL BE CARRIED FORWARD FROM YEAR TO YEAR UNTIL EXPENDED FOR THE PURPOSE SET FORTH IN SUBSECTION 3.95.030.A.~~

~~B. ANY UNEXPENDED FUNDS REMAINING IN THE COMMUNITY FACILITY DISTRICT NO. 2014-1 FUND AFTER TERMINATION OF THE CFD AND AFTER PAYMENT OF ALL OBLIGATIONS AND ASSESSMENTS, THOSE FUNDS SHALL BE DELIVERED TO MICROSOFT. (ORD. 2867 § 2 (PART), 2017).]~~

Section 5. Severability. If any section, sentence, clause or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such

invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase.

Section 6. Effective date. This ordinance shall become effective five days after its publication, or publication of a summary thereof, in the city's official newspaper, or as otherwise provided by law.

ADOPTED by the Redmond City Council this _____ day of _____, 2025.

CITY OF REDMOND

_____
ANGELA BIRNEY, MAYOR

ATTEST:

_____
CHERYL XANTHOS, MMC, CITY CLERK (SEAL)

APPROVED AS TO FORM:

_____
DANIEL KENNY, CITY ATTORNEY

FILED WITH THE CITY CLERK:
PASSED BY THE CITY COUNCIL:
SIGNED BY THE MAYOR:
PUBLISHED:
EFFECTIVE DATE:
ORDINANCE NO.

Date	Action	Lead	Deadline	Notes
4/25/2025	Microsoft writes request to CFD 2014-01 to dissolve	Microsoft		
7/15/2025	Discuss CFD 2014-01 dissolution - no action will be taken (discussion only)	CFD Board of Supervisors		
	Draft termination resolution for CFD 2014-01 and termination ordinance for Redmond City Council	Daniel Kenny	7/18/2025	
8/4/2025	During 8/4 Committee of the Whole meeting: • Council notification of plan for CFD 2014-01 Board of Supervisors to consider resolution to terminate CFD 2014-01 • Notification that if passed, the resolution will be emailed to Council after 9/2/2025 CFD meeting • Request Council approval to put CFD 2014-01 dissolution ordinance on 9/16/2025 consent agenda (passed CFD resolution would be an attachment to 9/16 agenda item)	Kelley Cochran	7/30/2025	• Presenting to Council during 8/4 COTW meeting because August FAC meeting canceled due to Council's August recess
9/2/2025	CFD 2014-01 Board of Supervisors considers resolution to terminate	CFD Board of Supervisors	8/27/2025	Resolution: (a) confirming that all improvements have been completed (b) confirming that all invoices have been paid (c) confirming that all assessments have been paid and expended or that the balance will be repaid to Microsoft under the Commitment to Fund (d) requesting that the City Council dissolve the CFD
9/3/2025	If approved on 9/2/2025, CFD 2014-01 Board of Supervisors emails passed CFD 2014-01 resolution to terminate to the Redmond City Council	Kelley Cochran		
~~9/16/2025~~	~~Public Hearing~~	~~N/A~~	~~N/A~~	Not required
9/16/2025	Redmond City Council Considers Ordinance Ratifying and Affirming Termination of CFD 2014-01 and Amending the Municipal Code to Remove this CFD from Code.	Redmond City Council	9/10/2025	Ordinance includes findings that the CFD is no longer needed, served its purpose, and has chosen itself to terminate • An ordinance will be considered by Council, rather an a resolution, because CFD 2014-01 will need to be removed from the Redmond Municipal Code.

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-441
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Planning and Community Development	Carol Helland	425-556-2107

DEPARTMENT STAFF:

Planning and Community Development	Seraphie Allen	Deputy Director
Planning and Community Development	Michael Hintze	Transportation Planning Manager
Planning and Community Development	Mary L'Heureux	Transportation Planner
Planning and Community Development	Francesca Liburdy	Senior Transportation Planner

TITLE:
WSDOT Regional Mobility Grant Acceptance

OVERVIEW STATEMENT:
The City of Redmond has been awarded the Washington State Department of Transportation's Regional Mobility Grant. In accordance with the Transportation Master Plan and Downtown Strategic Parking Implementation Plan which are under development, these funds will be used to pilot a shared parking program and on-demand shuttle in downtown Redmond. The pilot will be for two years. The goal is to have the shared parking and shuttle operational by the time light rail connects to Seattle.

The shared parking program would involve outreach to commercial properties within the downtown core of Redmond with underutilized parking capacity to develop a shared parking program that would more fully utilize available parking. The primary goal for the shared parking program would be to provide residents and employees of downtown businesses with long term parking solutions (as opposed to time restricted on-street parking) and provide people coming from outside downtown and wanting to connect with light rail additional parking options. This allows for on-street parking to be prioritized for retail customers in the downtown area, as approved in the Downtown Strategic Parking Implementation Plan.

The on-demand shuttle would cover roughly 2-3 square miles in the downtown and Education Hill neighborhoods. This would be a free service for community members and would connect people to transit, grocery stores, employment, medical appointments, and more. This shuttle would operate similar to the BellHop shuttle that currently exists in Downtown Bellevue. It is a goal to have the shuttle vehicles be electric, reducing the amount of carbon emissions occurring in the downtown area.

☐ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  - **Redmond 2050**, **FW-TR-1**: Plan, design, build, operate, and maintain a safe transportation system that advances an equitable, inclusive, sustainable, and resilient community by providing for the mobility and access needs of all.
  - **Redmond 2050, FW-TR-4:** Plan, design, build, operate, and maintain a transportation system that supports the City's sustainability principles.
  - **Redmond 2050, FW-TR-5:** Influence regional transportation decisions and leverage regional transportation investments in support of Redmond's transportation policy objectives.
  - **Redmond 2050, TR-6.7:** Implement transportation programs, projects, and services that support the independent mobility of those who cannot or choose not to drive.
  - **Redmond 2050, TR-15:** Implement transit to connect people in all Redmond neighborhoods to centers, light rail, and other neighborhoods, considering a full suite of transit options appropriate to the land use context.
  - **Redmond 2050, FW-CR-1:** Develop partnerships and programs to rapidly and equitably reduce greenhouse gas emissions and create a thriving, climate resilient community.
  - **2020 Environmental Sustainability Action Plan, T1.4**: Pilots for trip reduction. Continue piloting trip reduction initiatives such as app-based carpooling and scooter/bike share.
  - **2020 Environmental Sustainability Action Plan, T1.8:** Increase new mobility options. Encourage and foster the use of new mobility options, such as bike share, electric bike and scooters, and ride hailing.
  - **Downtown Parking Strategic Implementation Plan, 4:** Facilitate more effective use of private parking facilities
    - 4a. Branding, wayfinding and marketing for the shared parking system that may include a technology focus
    - 4b. City facilitated shared parking program including an initial pilot program
  - **Downtown Parking Strategic Implementation Plan, 5:** Build capacity within the City of Redmond to actively manage parking
    - 4c. Work with community and business partners to collaborate on parking management and mobility

- **Required:**
  Council approval is required for grant acceptance.
- **Council Request:**

N/A

- **Other Key Facts:**
  N/A

OUTCOMES:
We anticipate the shared parking program and on-demand shuttle will decrease vehicle miles traveled in the downtown core and will increase Redmond residents' access to the downtown light rail station and transit center.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  City of Redmond Parking Questionnaire, March-April 2024
- **Outreach Methods and Results:**
  Questionnaires
- **Feedback Summary:**
- Overall community interest in first/last mile connections to the existing and future transit network
- Interest and desire for more multimodal connections to the existing and future transit network, specifically via pedestrian and bicycle modes
- Interest in commuter and employee parking in the downtown core for people who would like to park all day and go to their jobs (either working in Downtown or commuting via bus or light rail).

BUDGET IMPACT:

Total Cost:
$1,219,000 (combined grant and matching funds) Staff working on this project are funded through the adopted budget.

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
0000310-Mobility of People and Goods

Budget Priority:
Vibrant and Connected

Other budget impacts or additional costs: ☒ **Yes** ☐ **No** ☐ **N/A**
If yes, explain:
The City is required to contribute a 20% match of the Regional Mobility Grant funds for the project.

Funding source(s):
Regional Mobility Grant ($975,000)
Commute Trip Reduction (CTR) funds ($60,000)
LTAC ($136,000)
Commute Assistant Office (CAO) Fund ($48,000)

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)
None
Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/2/2025	Business Meeting	Approve

Time Constraints:
Funding was awarded July 1, 2025.

ANTICIPATED RESULT IF NOT APPROVED:
Unable to take advantage of this grant opportunity.

ATTACHMENTS:
Attachment A: WSDOT Regional Mobility Grant Application
Attachment B: WSDOT Award Letter

27381 - Redmond TDM Active Parking Management and On-Demand Microtransit Plan

Application Details

Funding Opportunity:	25488-2025-2027 Regional Mobility Grant
Funding Opportunity Due Date:	Jun 25, 2024 3:01 PM
Program Area:	Regional Mobility Grant
Status:	Correcting
Negotiation Due Date:	08/27/2024
Stage:	Final Application
Initial Submit Date:	Jun 25, 2024 1:42 PM
Initially Submitted By:	Kim Keeling
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Name:	Salutation Kim First Name Middle Name Keeling Last Name
Title:	Program Administrator
Email*:	khkeeling@redmond.gov
Address*:	15670 NE 85th St PO Box 97010 Redmond City Washington State/Province 98073-9710 Postal Code/Zip
Phone*:	(425) 556-2451 Ext. Phone ###-###-####
Fax:	###-###-####

Organization Information

Legal Name*:	City of Redmond
DBA Name*:	City of Redmond
Organization Type*:	City Government
Unique Entity Identifier (UEI):	XK1UCKFKU3N9
Organization Website:	https://www.redmond.gov/ (Please enter http://... for this field)
Physical Address*:	15670 NE 85th St

	Redmond	Washington	98052-9710
	City	State/Province	Postal Code/Zip
Mailing Address*:	PO BOX 9710		
	Redmond	Washington	98073-9710
	City	State/Province	Postal Code/Zip
Remit to Address*:	PO BOX 97010		
	Redmond	Washington	98073-9710
	City	State/Province	Postal Code/Zip
Phone*:	(425) 556-2451 Ext.		
	###-###-####		
Fax:	###-###-####		
Fiscal Year End Last day of*:	December		
Indirect Cost Rate:	0.00%		
IDR Expiration Date:			

Organization Contact Information

Organization Contact Information

Organization Director

Name*:	Carol	Helland	
	First Name	Last Name	
	Director of Planning and Community Development		chelland@redmond.gov
	Title		Email Address

Applicant Contact

Name*:	Kim	Keeling	
	First Name	Last Name	
	Program Administrator		khkeeling@redmond.gov
	Title		Email Address

Project Contact

Name:	Kim	Keeling	
	First Name	Last Name	
	Program Administrator		khkeeling@redmond.gov
	Title		Email Address

Summary of Project Information

Summary of Project Information

Provide a brief, high-level description of your project. This description may be used to describe your project to the Legislature.

Project Summary*:

The proposed on-demand microtransit service and shared parking program will greatly enhance both local and regional mobility to Downtown Redmond, which is the future end of the Sound Transit 2 line.

Project Type(s)
Select as many as apply
*:

Transportation Demand Management

Service Area

Select all of the Legislative District(s) and County(ies) the project will serve.

Legislative District map

Legislative District(s) Select as many as apply ***:** 45,48

County(ies) Select as many as apply ***:** King

Construction Project Location

Provide the requested location links that apply to your capital construction project. If your project doesn?t include construction, leave the location link fields blank.

For a construction project at a single site (e.g., park and ride, bus shelter, charging station, etc.), provide a Google Street View link for the site. If a Google Street View link isn?t available for your project site, include a Google Map of the location (with coordinates) in the Attachments section.

Google Street View Link:

For a construction project that spans a range of locations (e.g., Bus Rapid Transit lines, physical route enhancements, etc.), enter the starting and ending locations in the form of Google Street View Links. If a Google Street View link isn?t available for your project start and/or end points, include Google Maps of the locations (with coordinates) in the Attachments section.

Starting Point Google Street View Link:

Ending Point Google Street View Link:

Relationship to Other Projects

Relationship to Other Projects

Is this project dependent on any other projects submitted by your organization?*: No

Did you, or will you, apply for this project in another grant program this biennium?*: No

Have you applied for the same project in a prior biennium and did not receive funding?*: No

Are you applying for other projects within this funding opportunity?*: No

Scope of Work

Scope of Work

Tasks and Deliverables

Briefly describe your project with the specific tasks and deliverables you are proposing. See Tasks and Deliverables in the application instructions for an example of a short scope of work.

Tasks and Deliverables*:

The shared parking and microtransit service program deliverables include, but are not limited to:
Partner with MoveRedmond to manage the outreach and utilization of at least 300 privately owned parking stalls
Release an RFP and select a contractor to provide 4 microtransit vehicles 7 days/week and 12 hours/day
Finalize a 1.5 square mile service area proximate to the Downtown Redmond light rail station
Create and release a marketing campaign to targeted users including residents and visitors

Local Plans and Coordination

Is your project or the need for this project in a local plan(s)? *: Yes

What local, regional, or statewide plan(s) include your project? Summarize what the plan(s) say about your project. If available, include a link to the plan with the page number that references your project.

Redmond 2050, the City Comprehensive Plan, will be adopted end of 2024.One core strategy is Organize Around Light Rail and a policy to Implement transit to connect people in Redmond neighborhoods to centers, light rail, and other neighborhoods, considering a full suite of transit options appropriate to the land use context.
Redmonds first Tourism Strategic Plan, adopted in May 2024, identifies the Sound Transit 2 Line as an opportunity for building day trips and overnight visitation from residents and visitors in the Greater Seattle Region and identifies building creative programming and engagement to stimulate interest and increase visitation. Creating ease of access through microtransit service is an ideal opportunity to build awareness of Redmond and its assets within a metro population that remains largely unaware of what is so close at hand. This plan built the awareness and supported needed from the Lodging Tax Advisory Committee to contribute matching funds for this grant (Redmond-Tourism-Strategic-Plan page 28).
The Downtown Parking Managment Strategic Plan was adopted by the Redmond City Council in 2020. This plan identifies a few key implementation strategies, which state:
Prioritize customer and visitor access for on-street parking
Adopt policies and regulations that enhance efficiency of on and off-street parking resources
Facilitate more effective use of the private parking facilities
Build capacity within the City of Redmond to actively manage parking
This grant will support the needed staff capacity to complete the identified actions, including where it specifically calls for a City facilitated shared parking program, including an initial pilot program (2020_0831-Redmond-Parking-Implementation-Plan-PDF page 5).
The proposed programs service area was established to address first/last mile transportation needs, considering future service proposed in King County Metros East Link Connections.
See attached letters of support

Is your project in a county with a population of 700,000 or more that borders Puget Sound? *: Yes

Describe the coordination used to develop the project and the amount of integration

The City has had direct conversations with King County Metro about this proposed program and will tailor the service to complement Metros bus service (see Metros letter of support). Further, the City will collect data that could inform potential future Metro Flex service.

Describe organizational planning efforts that address the need for your capital project request. Identify organizational plans (e.g. Transit Asset Management Plan, Zero Emission Transition Plan, Transit Development Plan, etc.) that support your capital project request. If your project doesn?t include capital, enter N/A.

Organization Plans*:

N/A

TSMO

Describe how your proposed project will improve operations of the multimodal transportation system overall. Identify and describe the Transportation Systems Management and Operations (TSMO) strategies, processes, and tools your project will use to help solve transportation system performance problems.

The purpose of using TSMO is to help you identify:

- Needed planning and coordination with WSDOT region staff and other partners for your project type.
- Common considerations for the transportation performance problems your proposed project is trying to solve that may be addressed by TSMO strategies, processes, and tools.
- Opportunities to optimize multimodal operations by utilizing existing infrastructure and strategies.

Project TSMO Strategies*:

This project utilizes TSMO strategies such as real-time parking data collection, park and ride, communication of parking information, and variable pricing based on demand to address the common transportation performance problems associated with parking, such as inefficient use of existing facilities and localized congestion. Redmonds area currently contains 12,056 off-street stalls (not including residential parking). However, observed parking occupancy rates show off-street parking at 32%-44%, despite this capacity. In addition, 73% of respondents to a 2019 parking survey felt that there was insufficient parking in Redmond. This project will connect people entering Downtown Redmond, whether to access light rail or other destinations, with available parking supply and provide first/last mile solutions for people utilizing this parking or arriving to Redmond by light rail and needing to access employment, hotels, or other destinations. The project may require close coordination with WSDOT, Sound Transit, King County Metro, businesses, and residents to broker parking agreements, distribute communications, access data sources, and monitor stakeholder feedback. As part of this program a first/last mile microtransit vehicle circulator solution will be evaluated and piloted. Based on preliminary needs assessment this would be an on-demand service that would benefit first/last mile circulation and connect people to and from the light rail station to multiple destinations.

Corridors and Communities

Using WSDOT?s corridor sketch summary viewer, identify the corridor numbers for all locations that your project will affect. If your project does not use the state highway

system, describe the communities or activity centers your project affects.

Corridors or Communities Affected*:

Corridor 460 (highway 202)
Corridor 246 (SR 520)
Corridor 505 (I-405)

Capacity Constraints

Describe the transportation capacity constraints and performance gaps your project will address.

Capacity Constraints and Gaps*:

No public parking available at Downtown Redmond light rail station, the end of the 2 line, where the regional demand for light rail access is expected to be high.

Limited parking in Redmond Transit Center (377 spaces, 99% utilized) which is the closest public parking garage to the Downtown Redmond light rail station.

Infrequent or lack of existing public transportation routes from residential areas to the light rail.

Transportation System Performance Indicators

Describe how your project relates to one or more of the following indicators of transportation system performance:

- WSDOT-identified congested corridors.
- Locally identified corridors or roadway locations with a D, E, or F level of service.
- Evaluation of transit capacity and market potential.
- Evaluation of first/last mile connections, including park and ride lot capacities.

Relationship to Transportation Performance Indicators*:

WSDOT-identified congested corridors.
This project seeks to increase light rail ridership and decrease driving within the SR 520 and I-405 corridors by decreasing barriers to accessing light rail for both Redmond residents in the greater Downtown area, and residents of neighboring communities that will choose to take light rail to destinations such as Bellevue and Seattle for commuting, entertainment, and other purposes.

Evaluation of first mile/last mile connections, including park-and-ride lot capacities.
Adding to current park-and-ride lot capacities and expanding access to parking for individuals using light rail service at locations closer to the Redmond light rail station. The Redmond transit center is within our service area and has 373 parking spaces and is 99% utilized.
This would also provide direct first/last mile connections for small business employees and several human service organizations, including the Redmond Hopelink location, the Together Center, and several low and supportive housing locations within Redmond.

Connectivity Barriers

Describe the barriers to connectivity between counties and regional population centers your project will address. Describe deficiencies in modal connections, services, or public transportation capacity in the project area.
This question is about the travel markets that your project addresses (e.g., traveler origins/destinations) and the extent to which people have limited travel options in the area where you have sited your project.

Connectivity Barriers*:

Primary audience:
Low-income housing / Downtown residents
Service area includes a few King County Housing Authority subsidized housing building, the Together Center, which houses 280 affordable housing units and over 20 social service offices, and the future Plymouth Housing location.
This area ranks high (10) through the Washington State Department of Health Information by Location tool regarding households without access to a personal vehicle, so assisting with making first/last mile connections will remove barriers to individuals relying on transit.

Visitors and Tourism Draw
Visitors will be able to take the light rail from the airport to downtown Redmond and the circulator will drop of them off directly at their downtown hotel.
Downtown businesses and their employees who do not have access to transit services have expressed difficulty with using transit and finding extended parking. We have received over 15 complaints from small businesses with these issues and they were greatly interested in this proposed program.

Adjacent communities
Communities like Woodinville, Duvall, and unincorporated King County that do not have frequent high-capacity transit.
Shared parking will increase park-and-ride capacity to allow residents to drive into Redmond and utilize light rail for regional trips rather than driving into Bellevue or Seattle

Project Solutions

Describe how your project addresses the transportation capacity constraints, performance gaps, barriers to connectivity, and deficiencies in modal connections identified above.

Project Solutions*:

From a regional connectivity and transportation capacity constraint perspective, this program will provide an option for people living in adjacent communities such as Woodinville, Duvall, etc. that are not well-connected by frequent transit to the light rail station to more easily access light rail and regional destinations by being able to find nearby parking and utilizing the on-demand microtransit service. Our proposed service area and number of vehicles in the microtransit fleet will reach what we believe to be key destinations within the Downtown Redmond area with low enough wait times to adequately address first/last mile barriers to regional transit in Redmond. By increasing number of trips taken by light rail to Bellevue and Seattle for work, social reasons, or even to the airport for travel, we can reduce cars on the road, addressing congestion issues and decreasing regional vehicle miles traveled.

Project Work Completed

Describe the work that you have already completed on this project. If work on this project hasn't yet begun, enter N/A.

Project Work Completed*:

N/A

Milestones

Project Activities

Project Activity	Applicable to Project?	Date (mm/yy)	Notes
Construction			
Preliminary engineering start date	No		
Environmental documentation complete: (e.g., NEPA, SEPA)	No		
Property acquisition complete (lease or purchase)	No		
Contract advertisement	No		
Operationally/substantially complete	No		
Vehicles			
Solicitation (request for proposals or invitation for bid) published	No		
Contract Award/Purchase order	No		
First vehicle accepted	No		
All vehicles accepted	No		
All vehicles placed in service	No		
Equipment			
Solicitation (request for proposals or invitation for bid) published	No		
Contract award/Purchase order	No		
First piece of equipment accepted	No		
All equipment accepted	No		
All equipment placed in service	No		
Operating Project Activities			
Service start date	Yes	10/25	Grant-supported program must begin no later than 10/25. RFP goes out by 8/25. Microtransit contract finalized by 8/25. Microtransit service start by 10/25.

Project completion date	Yes	06/27	6-month performance metric review for Microtransit program 6/26. 1 year performance metric review for Microtransit programs 10/26. Close out program, final report 6/30/27.
Transportation Demand Management Project Activities			
Project start date	Yes	10/25	Grant-supported program must begin no later than 10/25. RFP goes out by 8/25. Shared parking contract with Move Redmond finalized by 8/25. Shared parking program service start by 10/25.
Project completion date	Yes	06/27	6-month performance metric review for parking program 4/26. 1 year performance metric review for parking program 10/26. Close out program, final report 6/30/27.

Schedule Risks

Milestone Risks*:

Approval time for City RFP: The City occasionally runs into timing issues with ensuring our RFPs make it through the formal approval process quickly, which could be a schedule risk for this project. This can be managed by drafting the RFP in anticipation of receiving the grant and having it ready to release when grant awardees are notified.

Hiring of microtransit vehicle drivers: Some of the local microtransit agencies have shared that they struggle to recruit drivers in the local market due to competition. Redmond staff have budgeted for competitive wages for drivers to aid in recruitment of drivers for the program.

Shared parking program contracts: Our current partnership with Move Redmond (who will be managing the shared parking program) will allow us to begin work on establishing the contract for their work on the shared parking program and the program itself prior to funds being obligated. We also see potential schedule risks from the timing of agreements being formed with local commercial parking holders, but anticipate that our relationship with Move Redmond, One Redmond (chamber of commerce and foundation) and the City's economic development office would be able to leverage existing relationships to keep this process running smoothly.

Budget

Duration of Project

Duration of Project*: Two Years

Operating

Project Activity	Useful Life Years (1.5 x the length of grant)	25-27 RMG Funds	27-29 RMG Funds	Other State Funds	Local Funds	Federal Funds	Other Funds	Total Cost
Increased frequency	3	$760,000.00	$0.00	$0.00	$184,000.00	$0.00	$0.00	$944,000.00
		$760,000.00	**$0.00**	**$0.00**	**$184,000.00**	**$0.00**	**$0.00**	**$944,000.00**

Operating Budget Summary

Total Operating Requested Amount: $760,000.00

Total Operating Match Amount: $184,000.00

Transportation Demand Management (TDM)

25-27 RMG Funds	27-29 RMG Funds	Other State Funds	Local Funds	Federal Funds	Other Funds	Total Cost
$215,000.00	$0.00	$60,000.00	$0.00	$0.00	$0.00	$275,000.00
$215,000.00	**$0.00**	**$60,000.00**	**$0.00**	**$0.00**	**$0.00**	**$275,000.00**

TDM Budget Summary

Total TDM Requested Amount: $215,000.00

Total TDM Match Amount: $60,000.00

Vehicles / Equipment

Project Activity	Fuel Type	Useful Life	25-27 Regional Mobility Grant Funds	27-29 Regional Mobility Grant Funds	Other State Funds	Local Funds	Federal Funds	Other Funds	Total Cost

No Data for Table

Vehicle / Equipment Budget Summary

Total Vehicle / Equipment Requested Amount: $0.00

Total Vehicle / Equipment Match Amount: $0.00

Construction - Design / Preliminary Engineering Phase

Project Activity	25-27 RMG Funds	27-29 RMG Funds	Other State Funds	Local Funds	Federal Funds	Other Funds	Total Cost

No Data for Table

Construction - Right of Way Phase

Project Activity	Useful Life (# years)	25-27 RMG Funds	27-29 RMG Funds	Other State Funds	Local Funds	Federal Funds	Other Funds	Total Cost

No Data for Table

Construction - Construction Phase

Project Activity	25-27 RMG Funds	27-29 RMG Funds	Other State Funds	Local Funds	Federal Funds	Other Funds	Total Cost

No Data for Table

Construction Budget Summary

Total Construction Requested Amount: $0.00

Total Construction Match Amount: $0.00

Source of Match

Source of Match	Amount
Redmond TDM/CTR Grant Funds	$60,000.00
Lodging Tourism Advisory Committee funds	$136,000.00
Planning and Community Development general fund	$48,000.00
	$244,000.00

Status of Matching Funds

Status of Matching Funds*:

The Planning Dept. general fund based on previous budgets to account for the $48k coming from this source.

Commute Trip Reduction: Staff are anticipating that we will receive the same Commute Trip Reduction funding from the state as we have in the in the 2023-2025 budget cycle, $304,400.

Lodging and Tourism Advisory Committee: The Redmond LTAC has recommended that $136,000 be set aside from their funds in the 25-26 budget cycle for the use of these programs.

Documentation of Match

Description	File Name	Type	Size	Upload Date
Redmond Match Confirmation document	City of Redmond Match Confirmation.pdf	pdf	1 MB	08/14/2024 02:50 PM

Procurement

Procurement Plan*:

We will be issuing our own RFP for the microtransit vehicle process and will be contracting with Move Redmond to manage the shared parking program. City procurement policy attached.

Scalability

Is your project scalable?*: No

Summary

Operating

Oper. Total Project Cost: $944,000.00

Percent of Project: 77.44%
The percent of the total project cost represented by operations.

Transportation Demand Management (TDM)

TDM Total Project Cost: $275,000.00

Percent of Project: 22.56%
The percent of the total project cost represented by TDM.

Vehicle / Equipment

Veh./Equip. Total Project Cost: $0.00

Percent of Project: 0.00%
The percent of the total project cost represented by vehicles/equipment.

Construction

Const. Total Project Cost: $0.00

Percent of Project: 0.00%
The percent of the total project cost represented by capital construction.

Grand Total

25-27 Requested Amount: $975,000.00

27-29 Requested Amount: $0.00

Total Requested: $975,000.00

Match Amount: $244,000.00

Total Project: $1,219,000.00

Match Percentage: 20.02%

Indirect Costs

Indirect Costs

To charge indirect costs to a grant/project, your organization must have an approved indirect cost rate **or** cost allocation plan. Indirect costs must be included in the application budget.
If you plan to charge indirect costs, you must upload documentation of an approved indirect cost rate or cost allocation plan in the *Attachments* section.

Are you charging indirect costs to this grant/project? *: No

Organizational Capacity

Organizational Capacity

Describe how and with what funds you will maintain the project after Regional Mobility Grant funding expires.

Funding Beyond Grant*:

Following a pilot period, the City will have data on use cases and success to secure funding and expand the program. Like other cities such as Bellevue, the City will secure financial support from private donations, Tourism Promotion Area funds, transportation demand management funds, and advertising revenue. Specifically, this is what the City of Redmond anticipates for ongoing funding:

City of Redmond Transportation Demand Management Funds 30%
Tourism Promotion Area funds 30%
Private Donations 30%
Advertising Revenue 10%

Describe your organization?s experience implementing similar projects.

Project Experience*:

A public-private partnership project is the Redmond Technology Station Pedestrian Bridge. This bridge for pedestrian and bicycle users spans a state highway and provides access to light rail transit. Microsoft designed and constructed the bridge and dedicated ownership of the facility to the City of Redmond for maintenance and upkeep, including extensive landscaping, lighting, and architectural elements.

In preparation for the arrival of light rail transit to Redmond, the City was able to partner with Sound Transit to construct certain betterment projects, including roadway improvements and regional trail enhancements. The City leveraged grant funding, as well as a variety of cost saving methods to get the most benefit for the dollars invested. The City was able to plan for the costs of these projects and the increased ongoing maintenance costs of the new and enhanced facilities to create an inviting and accessible transit experience for all.

Project Performance

Project Performance

VT and VMT Reductions

Identify the estimated reductions in vehicle trips (VT) and vehicle miles traveled (VMT) your project will achieve in Year 1 and Year 4. Provide your estimates in the table. Year 1 is defined as:

- For operations and transportation demand management, the first year after the service or program begins operations.
- For equipment and vehicles, the first year after the equipment enters service.
- For construction, the first year after the facility is open to the public.

Year 1 Reductions*:	212049	1941784
	VT	VMT
Year 4 Reductions*:	268209	1993264
	VT	VMT

Methodology

Describe the methodology and assumptions you used to develop your estimates.

See WSDOT examples of standard methodology for calculating reductions in vehicle trips and vehicle miles traveled in Appendix C of the application instructions.

VT/VMT Methodology*:

We used new bus service methodologies with reasonable adjustments due to the on-demand nature of the microtransit service to determine how VT and VMT would be reduced on a local level. We also made assumptions based on current light rail travel in Seattle to expand our estimate out to a regional scale. A full explanation of how our estimates were achieved is attached, as well as the excel file with our calculations. A full memo explaining the methodology is attached.

Attach an Excel file with the supporting calculations for your final estimated reductions in vehicle trips and vehicle miles traveled. WSDOT staff will review the equations, formulas, and calculations you used to develop your estimates. Provide rationale for any assumptions you have made in your calculations.

Only one Excel file can be attached. Do not upload a password protected or encrypted file.

Final VT and VMT Calculations*: Redmond RMG Application VMT_VT Calculations.xlsx

Ongoing Project Performance

Describe the methods and strategies you will use to measure the performance of your project, including its vehicle trips and vehicle miles traveled reductions, annually for four years after the project is operationally complete.

Methods or Strategies*:

We will be tracking a variety of metrics once our program has begun to better understand how VMT and VT are being reduced. This includes tracking the change in parking utilization and knowing how many spots in the shared parking program are being utilized on an average day, as well as proactively building in the ability to survey where individuals who are utilizing parking are traveling to and from. We will also track the number of trips in the microtransit vehicles that start or end at transit stations in Redmond to understand how trips are being reduced by connecting individuals to transit. We will also be measuring the efficacy of our microtransit vehicle program by looking at average wait times, seat availability, trips per hour per vehicle, and number of shared trips (when the vehicle stops to pick up more passengers along the way).

Project Service Level Information

Project Specific Information	July 1, 2025 through June 30, 2027 (projected 24-months)	July 1, 2027 through June 30, 2029 (projected 24-months)
Revenue Vehicle Hours		
Revenue Vehicle Miles		
Passenger Trips		

Service Level Estimates

Service Level Estimate Description*:

N/A

Vehicle Replacement

Vehicle Replacement or Rebuild

Are you replacing or rebuilding a vehicle?*: No

Save form to continue. If you selected yes, please complete the vehicle information section below.

Vehicle Information

Replace or Rebuild	Vehicle Type	Year	Make/Model	Vehicle Description	Fuel Type	Remaining useful life	Vehicle Identification Number (VIN)	Current Status	Current Mileage	Other Applications	Other Grant Program

No Data for Table

Environmental Justice

Environmental Justice Assessment

Are you requesting $15 million or more in WSDOT funds for your proposed project?*: No

Environmental Justice Assessment (EJA) Map

EJA Map:

Environmental Justice Assessment (EJA) Completion

Enter the names of other agencies or governments (including affected tribes) that are involved with the project and their role:

Have you begun or have you completed the EJA?:

Environmental Justice Assessment (EJA) Reporting

Did you report the results of EJA to WSDOT Public Transportation Division staff? :

Supplemental Information

Supplemental Information

Supplemental Information:

We have combined the City of Redmond Transportation Policies, Local Plan and Coordination Links, and the VMT and VT methodology and data pdfs into one pdf to be able to attach all of the information.

Attachments

Attachments

Named Attachment	Required	Description	File Name	Type	Size	Upload Date
Required						
Service area map	✓	City of Redmond Regional Mobility Grant Service Area map.	City of Redmond RMG Program Service Area.pdf	pdf	635 KB	06/25/2024 11:14 AM
Letter from MPO/RTPO verifying project is consistent with the regional transportation plans or policies	✓	PSRC Support Letter	PSRC Support of City of Redmond RMG Application.pdf	pdf	102 KB	06/25/2024 12:16 PM
Copy of your agency?s greenhouse gas policy (or attach a document with a link to the policy)	✓	City of Redmond Greenhouse Gas Policy	City of Redmond Greenhouse Gas Policy.pdf	pdf	107 KB	06/25/2024 11:15 AM
Conditionally Required						
Letter of confirmation from any Public Transportation providers relied upon to achieve the performance estimates in the application. No letter is required if the project does not require coordination.						
Procurement Policy (required for new applicants or current grantees with outdated policies)		City of Redmond Procurement Policy	Purchasing Policies and Procedures - February 2022.pdf	pdf	611 KB	06/25/2024 11:16 AM
Indirect costs documentation (required if you are charging indirect costs to the project)						
Process for private transportation providers to apply for use of park and ride facilities						
Construction Project Attachments						
NEPA/SEPA assessment, if available						
Supplemental construction project information (building or site designs, site plans, location exhibits, etc.), if available						
Google map(s) with construction project coordinates (required only if Google Street View Link is unavailable)						
Optional Attachments						
Additional letters of support		Redmond RMG Application Letters of Support	Redmond RMG Application Letters of Support.pdf	pdf	2 MB	06/25/2024 12:25 PM
Additional supporting documentation		Local Plan and Coordination Links, VMT and VT Methodology and Data, and Transportation Policies	City of Redmond Other Supporting Documents.pdf	pdf	13 MB	06/25/2024 01:39 PM

Certification

Certification

I certify, to the best of my knowledge, that the information in this application packet is true and accurate and that this organization has the necessary fiscal, data collection

and managerial capabilities to implement and manage the project associated with this application:

Certification*: Yes

Application Authority*: Carol (First Name) Helland (Last Name)

Title*: Planning and Community Development Director

Date*: 06/25/2024

Pre-application

RMG Pre-application

Describe the proposed project. Include the purpose of the project and the transportation performance problem it is meant to address.

Project description*:

The Downtown Redmond Shared Parking and Circulator Program addresses two separate but connected transportation performance challenges: first and last mile connectivity to light rail and utilization of untapped parking capacity. If funded, this program will create the staff capacity and service investment needed to pilot a circular shuttle service and work with community and business partners to effectively manage underutilized public and private parking resources.

The City will partner with Move Redmond (Redmond?s TMA), to work directly with downtown property businesses to map parking availability and facilitate use of public and private parking facilities. This partnership will strengthen existing relationships with downtown organizations involved in parking, transportation, and economic development to create a dynamic parking system that maximizes public and private parking supply to meet the needs of customers, employees, and residents of downtown. In conjunction with the Shared Parking Program the project will pilot a circulator shuttle that will increase mobility and first and last mile connections to and from parking infrastructure and the 2-Line connection to the larger region.

The purpose of this program is to increase transit ridership, the perception of downtown parking availability and reduce congestion. This program is time sensitive due to the anticipated surge in parking demand in Downtown Redmond with the arrival of light rail in 2025.

TSMO

Describe how your proposed project will improve operations of the multimodal transportation system. Identify and describe the Transportation Systems Management and Operations (TSMO) strategies, processes, and tools under consideration for your project. The purpose of using TSMO is to help you identify:

- Needed planning and coordination with WSDOT region staff and other partners for your project type.
- Common considerations for the transportation performance problems your proposed project is trying to solve that may be addressed by TSMO strategies, processes, and tools.
- Opportunities to optimize multimodal operations by utilizing existing infrastructure and strategies.

Project TSMO strategies*:

This project utilizes TSMO strategies such as real-time parking data collection, communication of parking information, and variable pricing based on demand to address the common transportation performance problems associated with parking, such as inefficient use of existing facilities and localized congestion. Redmond's Downtown area currently contains 12,056 off-street stalls (not including residential parking). However, observed parking occupancy rates show off-street parking at 32%-44%, despite this capacity. In addition, 73% of respondents to a 2019 parking survey felt that there was insufficient parking in Downtown Redmond. Additionally, this project will better map parking supply and where first last mile solutions for connection to the 2 Line will be necessary to deploy.

The project may require close coordination with WSDOT, Sound Transit, King County Metro, Downtown businesses, and residents to broker parking agreements, distribute communications, access data sources, and monitor stakeholder feedback.

As part of this program a first last mile circulator solution will be evaluated and piloted. Based on preliminary needs assessment this could be a fixed route or on demand service that would benefit first and last mile circulation in Downtown and connect people to and from the light rail station to multiple destinations around Downtown. Through the pilot and collection of data public private partnerships and cost sharing could be explored and implemented.

Customer Base

What customer base is this project meant to serve? A customer base is defined as the group of customers that you serve or hope to serve.

Project customer base*:

The project will serve a diverse customer base: commuters, residents, visitors, and businesses. We plan to serve and collect data on highest and possible users. Staff will engage small businesses and their employees with current challenges of encouraging transit use and finding parking. Customers should experience a seamless connection from the Downtown Redmond light rail station to various defined destinations within Downtown that are just outside of walking distance.

Coordination

Have you discussed and coordinated with WSDOT regional staff on this project?*: No

Effects

Proposed projects may have positive and/or negative effects on other organizations and modes of transportation. Organizations and/or modes may include metropolitan planning organizations, regional transportation planning organizations, local jurisdictions, and transportation service providers.

Are there any other organizations and/or modes that could be positively and/or negatively affected by this project proposal?*: Yes

Briefly describe your collaboration with these organizations and/or modes:

Yes (Sound Transit and its services, including the 2 Line, King County Metro and its services, Redmond Town Center businesses, Downtown Redmond businesses. Additionally, this project would provide data for better wayfinding, bike/ped infrastructure and shared transportation deployment.).

Local Plan(s)

Is your project currently in a local plan(s)?*: Yes

What local plan(s) include you project? Summarize what the plan(s) say about your project:

In anticipation of the full 2-Line opening in 2025, innovative solutions are needed to encourage a mode shift to utilizing this new transit resource. The Downtown Redmond Shared Parking and Circulator Program proposal does both and is supported by strategies adopted and reviewed by the Redmond City Council such as the Comprehensive Plan?s Transportation Element, Economic Development and Tourism Strategic Plans, and the Downtown Parking Management Strategic Implementation Plan. Supporting policies include: ?Work with community and business partners to collaborate on parking management and mobility,? TR 6.7: ?Implement transportation programs, projects, and services that support the independent mobility of those who cannot or choose not to drive? and TR 15 ?Implement transit to connect people in all Redmond neighborhoods to centers, light rail, and other neighborhoods, considering a full suite of transit options appropriate to the land use context.

Associated Project(s)

Is your project dependent on other associated projects?*: No

Pre-application Budget

Pre-application Budget

Equipment/Vehicles

Equipment/Vehicles Estimated Project Cost: $0.00

Equipment/Vehicles Amount Requested from Regional Mobility Grant: $0.00

Equipment/Vehicles Percentage: 0.00%

The percent of the total project cost represented by equipment/vehicles.

Capital Construction

Capital Construction Estimated Project Cost:	$0.00
Capital Construction Amount Requested from Regional Mobility Grant:	$0.00
Capital Construction Percentage:	0.00% The percent of the total project cost represented by capital construction.

Operations

Operations Estimated Project Cost:	$0.00
Operations Amount Requested from Regional Mobility Grant:	$0.00
Operations Percentage:	0.00% The percent of the total project cost represented by operations.

Transportation Demand Management (TDM)

TDM Estimated Project Cost:	$980,000.00
TDM Amount Requested from Regional Mobility Grant:	$784,000.00
TDM Percentage:	100.00% The percent of the total project cost represented by TDM.

Summary

Total Estimated Project Costs:	$980,000.00
Total RMG Funding Requested:	$784,000.00
Percentage RMG Funding:	80.00%

June 24, 2024

As the Director of Planning & Community Development, I am confident that our department can meet the matching requirements for the Washington State Department of Transportation Regional Mobility Grant. The City of Redmond is on a biannual cycle, and the new biennium will begin January 1, 2025, and end December 31, 2026. As such, the City Council will not formally approve the 25/26 budget until November 2024. However, we have received firm commitments from Mayor Angela Birney, Council leadership, and the Local Tourism Advisory Committee to match this grant. Mayor Birney has submitted a support letter.

The following documents exhibit the amounts that Planning & Community Development have submitted to the Finance department as part of the department's baseline and requested budget for a total of $244,000:

- Special Revenue–Redmond Lodging and Tax Advisory Committee (LTAC) funds, $136,000.
- Special Revenue–Redmond Commute Trip Reduction (CTR) program, $60,000.
- City General Fund–Redmond Commuter Assistance Office (CAO), $48,000.

I am confident that these budgets will be approved by our City Council as part of this year's budget process. As a contingency measure if these funds are not approved, the department plans to match the entire grant with the department's general fund allocation.

Please find our provided documentation confirming the funding match attached.

Thank you for your consideration,

Carol V. Helland

Carol V. Helland

City Hall
15670 NE 85th Street
PO Box 97010
Redmond, WA
98073-9710

Redmond
WASHINGTON

Connected Community
Enhanced Livability
Environmental Sustainability

By Email

June 20, 2024

To whom it may concern,

I am writing to express my strong support of the City of Redmond's Regional Mobility Grant application. The City commits to the financial match for the duration of the Transportation Demand Management pilot program.

The proposed microtransit service will greatly enhance both local and regional mobility in the greater Downtown Redmond area, which is the future end of the Sound Transit light rail 2 line. The project will serve the Redmond Transit Center, Downtown Redmond light rail station, shared parking locations, a variety of employment locations, residential buildings and neighborhoods, hotels, retail, and a variety of medical and dental offices.

Limited parking availability, traffic congestion, and first/last mile connections from public transit can create significant barriers to work, health, and recreational mobility. The on-demand microtransit vehicle service can be tailored to complement Metro service to better meet local and regional transportation demand and optimize parking resources through a shared parking program. Furthermore, encouraging the use of alternative modes of transportation and reducing reliance on single-occupancy vehicles will contribute to our city's efforts to combat climate change and build a more resilient and environmentally sustainable community for future generations.

Following the pilot period, the City will have data on use cases and success to secure funding and possibly expand the program. Similar to the BellHop financial model in Bellevue, Redmond staff would work to secure financial support from private donations, Tourism Promotion Area funds, transportation demand management funds, and advertising revenue. Redmond has a successful track record of leveraging state grants and private partnerships to build and maintain programs and improvement projects like the Community Facilities District in partnership with Microsoft, which has developed the NE 40th Street Stormwater Treatment Facility and the Redmond Technology Bridge.

I am confident that the on-demand microtransit vehicle service and shared parking program will have a positive impact on the quality of life for residents and visitors alike, enhancing mobility, reducing congestion, supporting sustainable transportation, and fostering a more vibrant and inclusive urban environment.

Sincerely,

Angela Birney, Mayor
City of Redmond

This meeting will be held at the Redmond City Hall. Interested members of the public are welcome to listen to this meeting by phone at: 206-800-4590; Phone Conference ID: 478 628 220#. All public comments shall be emailed to Jackie Lalor (jlalor@redmond.gov) at least 24 hours before the meeting time. To view the meeting presentation, click here.

MEETING MINUTES DRAFT
Tuesday | June 11, 2024
12:30 - 2:30 p.m.

Prepared by Jackie Lalor, Staff Liaison jlalor@redmond.gov

LTAC Members:
- Steve Fields, Council Chair
- Nancy Heard
- Rashed Kannan
- Melody Lanthorn
- George Manojlovic

City of Redmond Staff:
- Jackie Lalor & Philly Marsh - Economic Development and Tourism

Guests:
- Audrey Fan - OneRedmond (TPA managing organization)

Agenda:
1. Meeting opening and April 30 meeting minutes approval (Committee Chair, Councilmember Fields)
2. General updates (City Staff)
    a. Member update
    b. 2025 Tourism Grants Open August 1
    c. Tourism Strategic Plan update
3. Overlake Intercultural District Passport Program update (City Staff)
4. 2025/2026 Budget Proposal (City Staff) - see page 2

Note: red budgeted items were increased or added by the LTAC in the budgeting session.

	A	B	C	D
1		2025	2026	Total
2	**Ongoing Expenses**			
3	**Administration & Research**	**33,000**	**33,000**	**66,000**
4	Adminstration (staff) + benefits	111,296	118,737	230,033
5	Covered by ARPA	-111,296	-118,737	-230,033
6	Supplies	500	500	1,000
7	Travel and Training	2,500	2,500	5,000
8	Data Software/Technology	30,000	30,000	60,000
9	**Marketing & Communications**	**328,000**	**328,000**	**656,000**
10	Website and Marketing Consultant	178,000	178,000	356,000
11	PR Consultant/Influencer	60,000	60,000	120,000
12	Advertising Budget	50,000	50,000	100,000
13	Collateral/printing	10,000	10,000	20,000
14	Strategic Marketing Partnerships	30,000	30,000	60,000
15	**Tourism Grant Program (festivals/events)**	**200,000**	**200,000**	**400,000**
16	Tourism Event Grants	150,000	150,000	300,000
17	Derby Days Event	50,000	50,000	100,000
18	**City Parks Tourism programming**	**100,000**	**100,000**	**200,000**
19	Redmond Lights - Winter Programming	50,000	50,000	100,000
20	Public Art/Placemaking Events and Promotion	50,000	50,000	100,000
21	**Total Ongoing Expense**	**661,000**	**661,000**	**1,322,000**
22	**Total Ongoing Projected Revenue**	**674,012**	**709,398**	**1,383,410**
23	**Total Under/Over**	**13,012**	**48,398**	**61,410**
24				
25	**One-Time Expenses**			
26	**Marketing & Communications**	**140,000**	**165,000**	**305,000**
27	World Cup activation		50,000	50,000
28	Light rail opening promotion	35,000		35,000
29	Innovation and Technology Industry Promotion		50,000	50,000
30	Promotional products	15,000	15,000	30,000
31	Photo and video content	20,000	0	20,000
32	Data Setup	20,000		
33	Opportunity marketing & advertising	20,000	20,000	40,000
34	Supplemental Staffing Support for TSP Implementation	30,000	30,000	60,000
35	**Tourism Grant Program (festivals/events/tourism programming)**	**25,000**	**25,000**	**50,000**
36	Tourism Event grants opportunity	25,000	25,000	50,000
37	**Tourism Development**	**183,000**	**143,000**	**326,000**
38	Shuttle pilot - grant match (DT circulator)	68,000	68,000	136,000
39	Bellwether Overlake Village Visitors Center Capital Investment	75,000	75,000	150,000
40	Bike storage infrastructure	40,000		40,000
41	**Total Onetime Expense**	**348,000**	**333,000**	**681,000**
42	**Current Reserve Fund**			**1,123,072**
43	**Ending Reserve Fund**			**442,072**

a. Discussion and working budget session
   i. The LTAC expressed gratitude for ARPA federal dollars continuing to fund tourism staff support and benefits. However, members also voiced concern that the lodging tax fund should be self-sustaining and emphasized the need to ensure that this fund can support necessary staffing well into the future, beyond this budget cycle and once ARPA dollars no longer remain an option.
   ii. The LTAC increased the Travel and Training 2025/2026 budget from $1,000 to $5,000.

iii. The LTAC expressed concerns with $100,000 in lodging tax tourism funding going towards Derby Days in the 2025 and 2026 budget. Discussion points and comments included:
   - The LTAC expressed that Derby Days is a great community event, but this level of funding should be considered from a source or sources that are more appropriate in lieu of a tourism fund meant to bring people to Redmond from more than 50-miles away.
   - The LTAC expressed concern that this conversation has been brought up for years, but no other funding source as been identified for this event.
   - As Derby Days is currently programmed, it does not bring in enough hotel stays for the current level of tourism funding.
   - The mid-July date of Derby Days is one of the busiest times for hotels with minimal free rooms available.
   - The LTAC requested that dates in August be considered for future Derby Days events.
   - The LTAC would like to invest some of this money in other events, programs, and investments that bring more visitors from outside of 50 miles and increases paid overnight stays.
   - The LTAC discussed data gaps and future needs to show how this event and others receiving lodging tax funding are driving tourism.
   - The LTAC would like Derby Days event staff to consider creating a business passport program or a tourism marketing campaign directed at driving larger economic impact and paid overnight stays.
   - The LTAC is willing to recommend funding at recent levels for Derby Days for the 2025/2026 budget but would like the event to be more focused on driving tourism.

iv. The LTAC increased one-time funding for the 2025 budgeted light rail and Seattle connection openings from $25,000 to $35,000.

v. The LTAC increased one-time 2026 budget for innovation and technology promotion from $25,000 to $50,000.

vi. The LTAC added $60,000 in one-time funding for supplemental staffing support in the 2025/2026 budget.

vii. The LTAC added $40,000 in one-time funding for traveler bike storage infrastructure in the 2025 one-time finding budget. This conversation specifically centered around revenue generating bike lockers within underutilized hotel parking garages and storage areas to help with last mile connectivity to light rail.

b. LTAC budget recommendation to City Council

LTAC Vote of Support:

The LTAC recommends this 2025/2026 lodging tax budget from the LTAC to the City Council.

Action: Unanimously Approved 5 yes; 0 no votes

Motion: Rashed Kanaan; Second: Melody Lanthorn

Section 47
Agreement Close Out

The CONTRACTOR shall notify WSDOT if the AGREEMENT is completed prior to the end date set forth in the caption header, "Term of Agreement". A written notification needs to be provided to WSDOT that the project is complete. WSDOT will prepare an amendment to modify the AGREEMENT to reflect the actual amount spent and the Project completion date.

Section 48
Binding Agreement

The undersigned acknowledges that they are authorized to execute the AGREEMENT and bind their respective agency(ies) and/or entity(ies) to the obligations set forth herein.

IN WITNESS WHEREOF, the PARTIES hereto have executed this AGREEMENT the day and year last signed below.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

Firas M Digitally signed by Firas Makhlouf Date: 2023.12.09 09:39:25 -08'00'

For **Brian Lagerberg, Director**
Public Transportation Division

12-09-2023
Date

CONTRACTOR

DocuSigned by: Kelley Cochran (Mayor Designee) 5D9FC672714C4E4...

Authorized Representative

Finance Director
Title

Kelley Cochran (Mayor Designee)
Print Name

12/6/2023
Date

2023-2025 CTR Administrative Workplan – City of Redmond

1. Organization
City of Redmond
2. Agreement number
PTD 0827
3. Local agency contact
Kim Keeling
425-556-2451
khkeeling@redmond.gov
4. Employer engagement
a. Identify worksites and employee transportation coordinators
Activities:
- Identify prospective worksites.
- Notify employers of legally required activities.
- Verify employees, worksites and employee transportation coordinators in survey and program report system.

Deliverables:
- Over 100 Employees report.
- Copies of letters/email to new employers.
- Copies of completed inquiry forms.

b. Engage and educate employee transportation coordinators
Activities:
- Conduct training sessions.
- Provide outreach and consultation.
- Provide technical assistance for worksite commute programs and employee surveys.
- Encourage employee transportation coordinators to attend the Washington State Ridesharing Organization conference and other educational trainings and events.
- Send encouragement and reminder emails.

Deliverables:
- Training slides and handouts.
- Newsletter for employee transportation coordinators.
- List of employee transportation coordinators who completed training or attended events.
- Copies of email invitations.

c. Support distribution of information about transportation options to commuters
Activities:
- Develop promotions.
- Create promotions, produce materials, and distribute them to employee transportation coordinators.
- Convene colleagues from nearby jurisdictions to create regional promotions and share materials.

Deliverables:
- Copy of promotions calendar.
- Examples of promotional materials.
- Documentation of promotions results and ideas for future improvement.

d. Enable incentives, subsidies, and disincentives

Activities:

- Promote the Commute Trip Reduction business-and-occupation tax/public-utilities-tax credit.
- Provide resources and contacts to employers for King County Metro to develop programs to offer transit passes to their employees.
- Provide information to encourage employers to offer improved commute benefits; commute benefits offered by industry peer organizations, how commute benefits contribute to sustainability, effects of commute benefits on employee satisfaction, recruitment, or retention.
- Provide educational materials that indicate how much workers value commute benefits.
- Provide safe biking accessories.
- Provide information to employers for telework/compressed-work-week consultant available to employee transportation coordinators.

Deliverables:

- Documentation of results of promotions.
- Summary of benefit trends.

5. Commute trip reduction plan

Activities:

- Comply with WSDOT CTR Plan guidance.
- Develop workplan and timeline.
- Public and stakeholder engagement.
- Identify and review resources.
- Develop plan content and draft plan.
- Integrate with regional 4-year plan.
- Obtain approvals from governing authorities of the CTR law and ordinance.

Deliverables:

- Draft plan.
- Final plan.

6. Performance reporting

a. Worksite surveys

Activities:

- Review revised policies and tutorials.
- Attend WSDOT trainings and workshops.
- Survey worksites.
- Provide training and technical assistance to employers.
- Monitor online dashboards and help employers interpret and use dashboards to guide their programs.
- Analyze survey results and identify trends.

Deliverables:

- Survey results.
- Report on trends.

b. Program reports

Activities:
- Review revised policies and tutorials.
- Attend WSDOT trainings and workshops.
- Provide training and technical assistance to employee transportation coordinators.
- Review program reports, provide feedback to employers.
- Analyze program reports and identify trends.

Deliverables:
- Copy of program report.
- Briefing paper on trends.

a. Worksite needs assessments

Activities:
- Obtain regular reports from employee transportation coordinators which include updates on progress toward CTR program requirements, activities, trip tracking, and/or worksite commute trends.
- Analyze reports from employee transportation coordinators, identify needs, and create action plan to meet needs.

Deliverables:
- Reports.
- Action plan.

7. Administration

a. Financial management

Activities:
- Complete quarterly billing to WSDOT.
- Maintain financial records.
- Apply for additional grant funding.

Deliverables:
- Invoices
- Quarterly reports
- Financial records
- Grant application

b. *Program management*

Activities:
- Provide quarterly reports to WSDOT.
- Maintain employer information.
- Maintain plan and ordinance.
- Provide feedback to WSDOT to improve processes and program performance.

Deliverables:
- Quarterly reports to WSDOT.
- Employer information list.
- Local CTR plan.
- Local CTR ordinance.

c. Policymaker engagement

Activities:
- Provide updates to executive management and city council.

Deliverables:

- Slides and or reports.

d. Community of practice

Activities:

- Attend TDM Technical Committee, TDM Executive Board meetings, and CTR implementers meetings.
- Review and comment on the State CTR Plan, State CTR Report, and regional and local transportation plans.
- Attend regional TDM forums, committees, boards, working groups.

Deliverables:

- Meeting agendas and participants.

Budgeting by Priorities

Budget offer

Vibrant and Connected

Department Name: Planning **Id:** 0000035

Light Rail

Light rail service to the City's urban centers of Overlake and Downtown, as well as Marymoor Village, facilitates a vibrant economy and forms the essential transit spine for Redmond to connect to the region. Through a project administration agreement, the City provides comprehensive services necessary to bring the East Link and Downtown Redmond Link Extension projects to completion.

Performance Measures:

Outcome: A transportation system that supports multimodal movement of people and goods

- Dashboard Indicator: Mobility Report Card - Ratio of Redmond's transportation supply to transportation system demands (i.e., concurrency)
- Program Measure: Percentage of transportation network completed for all travel modes
- Program Measure: Percentage of Redmond commute trips using alternatives to single occupancy vehicle (SOV)

Baseline Program Description:

Project Administration: Manages the work of the project team, maintains relationships with project partners, negotiates interagency agreements, provides financial oversight, and engages with the community to keep the project moving.

Real Property: Negotiates and processes property transactions such as easements, transit way agreements, right-of-way vacations, and fee acquisitions needed to facilitate the extension of light rail to Redmond.

Permitting: Reviews and provides input on architectural, civil, and structural plans on an expedited timeline to ensure that the project meets City zoning, building, design, and engineering standards.

Inspection: Provides building and civil inspection services to ensure facilities are built in compliance with issued permits and applicable standards.

Budget Offer Summary

Expenditure summary

	Year 1	Year 2	Total
Ongoing-Sal/Ben	$1,307,844.88	$1,194,958.29	$2,502,803.17
Ongoing-Others	$74,972.23	$35,100.45	$110,072.68
Total	$1,382,817.11	$1,230,058.74	$2,612,875.85

	FTE Year1	FTE Year2
FTEs	7.55	6.55

Budgeting by Priorities

Budget offer

Vibrant and Connected

Department Name: Planning **Id:** 0000140

Microsoft Campus Refresh

Microsoft is investing in a multiyear project to reimagine its main campus and expand the Redwest campus. Located in Redmond's Overlake neighborhood, these projects will benefit the broader Redmond community by providing a strong, diverse, and stable employment base and by attracting a broader array of goods and services. Redmond's memorandum of understanding with Microsoft will provide comprehensive services necessary to deliver the project.

Performance Measures:

Outcome: City services and future growth facilitated by high-quality public infrastructure and facilities

- Dashboard Indicator: Business Longevity - The number of active businesses in Redmond that have held a Redmond business license for seven years or more
- Program Measure: Job density compared to growth targets
- Program Measure: Population density compared to growth targets

Baseline Program Description:

Project Administration: Manages work of the project team, maintains relationships with project partners, negotiates interagency agreements, engages with the community, and completes various administrative tasks to keep the project moving forward.

Land Development: Reviews land use permits for compliance with all applicable codes and standards that address design and the future construction and maintenance of the natural and built environment.

Civil Engineering: Examines all civil construction plans for compliance with land use approval conditions as well as all other relevant codes and standards related to the construction and long-term maintenance of both public and private infrastructure.

Building and Fire Plan: Reviews plans to ensure that construction will comply with all codes and local standards for building, fire, land use, zoning, and development standards.

Inspection: Performs all required building, fire, and land use inspections in the field to ensure the safety of the community and future building occupants

Budget Offer Summary

Expenditure summary

	Year 1	Year 2	Total
Ongoing-Sal/Ben	$2,521,994.96	$1,634,507.34	$4,156,502.30
Ongoing-Others	$401,802.00	$247,157.00	$648,959.00
Total	$2,923,796.96	$1,881,664.34	$4,805,461.30

	FTE Year1	FTE Year2
FTEs	13.95	8.62

Budgeting by Priorities

Budget offer

Vibrant and Connected

Department Name: Planning **Id:** 0000034

Mobility of People & Goods

The City strives to ensure safe and efficient travel around Redmond. The City plans for and implements interconnected transportation networks to create economic opportunity while supporting access through all modes of travel. Providing strategic planning, project development, analysis, and engineering necessary to deliver and sustain a transportation system helps achieve Redmond's vision for vibrant urban centers and connected neighborhoods.

Performance Measures:

Outcome: A transportation system that supports multimodal movement of people and goods

- Dashboard Indicator: Mobility Report Card - Ratio of Redmond's transportation supply to transportation system demands (i.e., concurrency)
- Program Measure: Percentage of transportation network completed for all travel modes
- Program Measure: Percentage of Redmond commute trips using alternatives to single occupancy vehicle (SOV)

Baseline Program Description:

Regional and Private Partnerships: Leverages regional and private partnerships to build out the transportation system, such as those with Sound Transit, Puget Sound Regional Council, Microsoft, King County, and Washington State Department of Transportation.

Grants: Secures and administers grants and partnership funds supporting the delivery of the Capital Investment Program (CIP) for new and expanded transportation infrastructure that supports planned growth.

Capital Investment Program (CIP) Development: Advances planning, studies, engineering, and capital project development consistent with the Transportation Master Plan to allow CIP project delivery to be concurrent with growth and align with the City's vision.

Multimodal Transportation: Provides a transportation system that supports safe, efficient, and multimodal movement of people and goods by completing missing links and new facilities.

Business Access and Mobility - Commute Trip Reduction (CTR): Provides programming, resources, and incentives to give City employees, residents, and students options for getting to and from work and school.

Parking Management: Manages the City's parking resources to facilitate the movement of people and goods to ensure access to businesses.

Budgeting by Priorities

Budget offer

Vibrant and Connected

Department Name: Planning **Id:** 0000034

Mobility of People & Goods

Budget Offer Summary

Expenditure summary

	Year 1	Year 2	Total
Ongoing-Sal/Ben	$1,290,120.02	$1,376,852.17	$2,666,972.19
Ongoing-Others	$711,647.74	$738,111.33	$1,449,759.07
Total	$2,001,767.76	$2,114,963.50	$4,116,731.26

	FTE Year1	FTE Year2
FTEs	8.03	8.03

City of Redmond Greenhouse Gas Policy

Greenhouse Gas reduction goals are a part of the City of Redmond Environmental Sustainability Action Plan. Transportation related policies can be found starting on age 39, and the exact Greenhouse Gas goals can be found on page 41.

The plan can be found at 2020 Environmental Sustainability Action Plan | Redmond, WA

Redmond
WASHINGTON

CITY PURCHASING POLICIES AND PROCEDURES

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"I want a city government that is responsible and responsive to its residents and businesses."

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Introduction

This Purchasing Policies and Procedures Manual is provided to guide and assist city staff with basic procurement and contracting requirements, as noted in the Redmond Municipal Code and Washington State statutes. The procedures set forth in this Manual are designed to assure the citizens, City Council, and City Administrators that the City of Redmond is receiving maximum value for expended funds and exhibits fiscal responsibility for the procurement process.

Redmond is a code city operating under the Optional Municipal Code, Revised Code of Washington (RCW) 35A. There are no statutory bidding requirements for Redmond, as a code city, when purchasing supplies, materials, equipment, or services not related to a public work or improvement. The Purchasing Division of the Finance Department sets bidding and purchasing policies and procedures for the City of Redmond.

All references to the Revised Code of Washington (RCW) and/or city ordinances and resolutions shall be incorporated as part of this policy, including any future amendments. In cases where these policies may conflict with any city ordinance or resolution, or any state or federal law or regulation, the terms of the law or regulation prevails. In all other cases, these policies apply.

Common Terms

Bid is an offer submitted by a contractor in response to an invitation for bid (IFB) or advertisement. Typically, a bid results in a contract being awarded to the lowest, responsive, responsible bidder.

Consultant is typically used when working on a professional services contract. The term means a person with education and/or experience which uniquely qualifies them to perform some specialized services.

Contractor is typically used when referring to a construction or maintenance company. May also apply to an individual or business having a contract with the City.

Procurement includes all functions that pertain to the acquisition, including description of requirement, selection and solicitation of sources, preparation and award of contract, and all phases of contract administration.

Proposal is the document submitted by the offeror in response to an RFP/RFQ. Proposals allow for contract award based on factors other than cost and may result in negotiations.

Purchasing is the act, function, and responsibility for the acquisition of equipment, materials, supplies, and services. The process of buying.

Quote is a statement of prices, terms of sale, and description of goods or services offered by a vendor to the City. Commonly used more in information solicitations.

Vendor is typically used when referring to a supplier; one who sells goods, materials, or supplies.

What This Manual Covers

The process of selecting vendors and managing contracts should be subject to the highest ethical standards and embody the value of stewardship of public resources by ensuring the procurement process provides the greatest attainable levels of both quality and value.

The purchasing process is designed to guide city staff towards meeting the following goals:

- Create open and fair competition
- Include terms and conditions required to protect the City
- Meet ethical standards

The Process

Before any purchase is made, the following items must be considered:

Define the Need – are you buying goods or services, or is it a public work?

Determine the Cost – what is the estimated cost?

Process – what is the best way to procure the item?

Protect the City – how do we properly protect the City from liability?

Authority – who must approve the purchase?

Contract Administration – what is my responsibility?

Sources

Revised Code of Washington (RCW)

Finance Department

Resolution 1503
Authorizing bidding requirements and signing authority.

I. DEFINE THE NEED

The first step requires determining the type of goods or services to be purchased. The City categorizes purchases in the following manner:

Operating Supplies and Equipment

Operating supplies and equipment are tangible items that are manufactured and moveable at the time of purchase.

> Examples: Office supplies, furniture, auto parts, food, janitorial supplies, electrical supplies, topsoil, flowers, signs, small tools, vehicles, clothing, ammunition, bunker gear, AV equipment, irrigation parts, etc.

Operating, Repair and Maintenance, and General Services

Operating, repair and maintenance, and general services are those provided by vendors for routine, necessary, and continuing functions of the City, mostly relating to physical activities. These services are usually repetitive, routine, or mechanical in nature, support the day-to-day operations, and involve the completion of specific tasks or projects.

> Examples: Automotive repair, window washing, janitorial or laundry services, temporary help, testing, software and subscription maintenance, recycling, holiday lighting, rentals, etc.

Professional Services

Professional services involve technical expertise provided by a consultant to accomplish a specific study, project, task, or other work. These activities and products are mostly intellectual in nature and do not include architectural and engineering services, which have their own requirements.

> Examples: Consultants, attorneys, public defender services, user fee studies, market research, actuarial services, aerial mapping, arborists, graphic designers, technology design, social or community services, software installation, etc.

Architectural and Engineering Services

Architectural and engineering (A&E) services are guided by RCW 39.80 and city policy.

> Examples: Engineer services, land surveyors, architects, and landscape architects.

Tips & FAQs

Do I have to include sales tax in the estimated cost of the purchase?

Yes – the full cost of the goods and services or project, including sales tax, must be considered.

Do purchases related to federal or grant funding have different rules?

Yes – documents must be reviewed carefully to understand the requirements. In many cases, the dollar threshold requirement to obtain bids may be lower than the City's policy.

Public Works

Public works includes all work, construction, alteration, repair or improvement other than ordinary maintenance, executed at the cost of the City.

> Examples: demolition, remodeling, renovation, road, building and utility construction.

II. DETERMINE THE COST

Once the need has been defined, the estimated annual cost of the goods or services will generally determine what competitive selection process and required approval is needed before proceeding. Where an annual cost is not applicable, such as new technology implementation projects, public works and/or architectural and engineering services, the estimated full project cost will determine the competitive selection process and required approvals. All estimates must include applicable sales tax and shipping.

Federal and Grant Funding

Purchases or projects that will be funded using federal or grant funding may have specific procedures that are required to be followed regarding obtaining bids, tracking of expenditures, and obtaining approvals. In some circumstances, bidding requirements may be more restrictive than the City's policies and require bids at lesser amounts.

The project or grant manager is responsible for understanding the applicable requirements prior to expending any of the awarded funds. Documentation must be provided to the Purchasing Division when requesting a purchase requisition or purchase order to validate that proper bidding procedures were followed.

III. PROCESS

The Competitive Process

Competitive pricing is encouraged to ensure that the City uses its resources wisely. To determine when competition is required, it is important to first define the needed goods or services and dollar amount. The charts noted on the following pages can be used to help you determine the specific required process. Depending on the category of spending, purchases above $10,000 will generally require some type of comparative pricing.

Tips & FAQs

Exceptions to the Competitive Process

Goods and Services
RCW 39.26.125

Public Works
RCW 39.04.280

Sole Source
RCW 39.26.140

Emergency
RCW 39.26.130

Cooperative Purchasing
RCW 39.34

Common Terms

Evaluation Criteria is weighted point-based criteria used to establish minimum requirements that a proposal must meet to be considered responsive.

Scope of Work is a statement outlining the specific services or work product that a contractor or supplier is expected to provide, including details on expected delivery date, product needs, and level of service.

Solicitation is a request for bids/proposals/qualifications via an IFB/RFP/RFQ.

Exceptions to the Competitive Process

Certain exceptions to the bidding process are governed by state statutes (see side bar). Approval of the exception must be stated in writing and approved by the Department Director or designee. For certain items, waiving competitive bids with anticipated costs above $50,000 will require approval by the Mayor. See the charts noted in the following sections for more details by category of the expenditure.

It is important to note that only the requirement for competitive bidding or advertising is waived. All contracting, approvals, or insurance requirements will still need to be processed considering policy rules.

The following exceptions to a competitive process are allowed by state law:

- Purchases that are clearly and legitimately limited to a single source of supply (see Sole Source Purchasing Section for more details)
- Purchases involving special facilities or market conditions
- Insurance and bonds
- Public Works in an emergency event

In addition to the state exceptions, the City's policy allows for waiving multiple quotes for goods and services when the following circumstances exist:

- Unique circumstance that makes competitive bidding impractical (requires Non-Competitive Procurement Justification Form approved by Director or Mayor)
- Use of a State Contract or Interlocal/Cooperative Purchasing Agreement where the bidding process, at a minimum, matches the City's process
- Original equipment manufacturer (OEM) renewals

Soliciting Proposals, Bids, or Qualifications

There are different methods used to solicit competition. The specific type used will depend on the needed goods, services, or information. Where competition is required by either statute or the City's policies, the following are available:

Request for Proposal (RFP)

An RFP is a formal invitation to suppliers to submit proposals for a needed good or service. RFPs are evaluated on a number of factors that may include cost, supplier's experience, qualification, and proposed solution.

Request for Information (RFI)

The purpose of an RFI is to collect written information about the capabilities of various suppliers. An RFI is primarily used to gather information to help make a decision on what steps to take next.

Tips & FAQs

Do I have to write my own RFP?

No – the Purchasing Division can help you prepare the request and guide you through the various steps. Please contact us early in the planning stage so that we can help you with the process.

When I review Statements of Qualifications do I consider the estimated cost as part of the evaluation criteria?

No – qualification-based reviews do not use cost as part of the evaluation. Once the most qualified firm has been chosen, the City can negotiate a contract at a price that is determined to be fair and reasonable for the required services.

Invitation for Bid (IFB)

An IFB or Invitation to Bid (ITB) is an invitation to contractors or equipment suppliers to submit a bid on a specific project, product, or service to be furnished. The process is focused on pricing, and not on ideas or concepts.

When soliciting either an RFP or IFB, the following items need to be provided for the process:

- Project background and scope of services
- Definitions
- Minimum qualifications
- Technical requirements (if any)
- Schedule of the competitive process
- Requirements to meet for the requested goods or services
- Evaluation process and criteria
- Insurance requirements
- Funding sources such as grants or federal funding (if applicable)
- Desired term and any renewal provisions (See Duration of Contracts Section)
- Sample city contract

Request for Qualification (RFQ)

An RFQ is a solicitation method that considers and evaluates a service provider on the basis of demonstrated competency and qualifications, rather than price. The process is typically used for architectural and engineering services where price is not a consideration. An RFQ will generally result in negotiations.

An RFQ requires the following items to be provided for the process:

- Project background and scope of services
- Project budget and source of funding
- Schedule
- Minimum qualifications
- Submittal requirements
- Evaluation criteria and selection process
- Insurance requirements
- Sample city contract

The Purchasing Division can assist you with posting your documents on the City's web page and advertising.

The following steps are also items to consider and complete prior to purchasing or awarding a contract:

Tips & FAQs

RCW 39.04.105 notes that when a municipality receives a written protest from a bidder for a public works project which is the subject of competitive bids, the municipality shall not execute a contract for the project with anyone other than the protesting bidder without first providing at least two full business days' written notice of the municipality's intent to execute a contract for the project, provided that the protesting bidder submits notice in writing of its protest no later than two full business days following bid opening. Intermittent Saturdays, Sundays, and legal holidays are not counted.

RCW 39.34.040 requires approved Interlocal agreements to be filed with the county auditor to be considered effective. Alternatively, the City may choose to list the agreements by subject on the City's website. The City has chosen the alternative method.

- Form your selection team
- Create an evaluation sheet for the team to score proposals
- Conduct interviews if desired (or required)
- Identify successful proposer
- Receive approval from Department Director to begin contract negotiation
- Negotiate with proposer using the City's contract that was included in the proposal documents; include any necessary Exhibits
- Verify required city approvals – i.e., Council or other as noted in the Authorization Section of this document
- If no Council approval is required:
    - Obtain proposer signature on the contract
    - Provide a copy of the signed contract and all attachments, to the City Clerk's Office
- If Council approval is required:
    - Check with Department Director
    - Schedule Council meeting date and prepare memo
    - After Council approval, obtain proposer's signatures on the contract
    - Provide a copy of the signed contract and all attachments, to the City Clerk's Office

Protest Procedures

City of Redmond policy does not provide protest procedures for the various goods and services it procures, although protest procedures may be specified within the bidding documents. The City reserves the right to reject any or all proposals, and to waive any irregularities or information in a competitive bid evaluation process. The final decision is the sole decision of the City of Redmond, and all bid respondents have no appeal rights or procedures guaranteed to them.

Contracts for public works, other than those using Washington State Department of Transportation's (WSDOT) Standard Specifications, will follow RCW 39.04.105.

Contracts based on WSDOT's Standard Specifications for Road, Bridge and Municipal Construction (typically Construction Division capital projects) will follow protest procedures outlined in the contract documents.

Cooperative Purchasing

The City may take advantage of the State of Washington bid process, use public purchasing cooperatives, or intergovernmental agreements with other political subdivisions' competitive bidding processes to meet its bidding requirements.

Tips & FAQs

Pumps for the City's main stormwater vault are on the schedule for replacement. I used vendor "X" to buy them 10 years ago and was told at that time they're the only distributor. I think it's a sole source purchase.

Possibly – but depending on the cost, multiple quotes may be required. And due to the number of years since the last purchase, you need to verify if there are other distributors that can be used.

Three trees fell and are blocking the only parking lot entrance for City Hall. Do I need to get bids to remove the trees and have them hauled away?

No – this would be considered an urgent need.

The State of Washington Department of Enterprise Services (DES) offers existing contracts for goods and services that the City may use. The U.S. General Services Administration (GSA) cooperative purchasing program may be accessed for IT and security/fire/law enforcement purchases (Schedules 70 and 84). The City also has many approved interlocal purchasing agreements currently in effect.

Please contact the Purchasing Division to assist you with determining if there is a local contract or agreement that can be utilized for the goods and services needed. Prior to using another agency's contract, the Purchasing Division will need to verify that the bidding process used is in compliance with city policy.

Sole Source Purchasing

Competitive bidding may be waived if a purchase is clearly and legitimately limited to a single supplier. Examples include:

- Licensed, copyrighted, or patented products or services that only one vendor provides
- New equipment or products that must be compatible with existing equipment or products
- Proprietary or custom-built software or information systems that only one vendor provides
- Products or services where only one vendor meets the required certifications or statutory requirements

The Purchasing Division requires the Non-Competitive Procurement Justification Form be completed, to document why a product or service is presented as only provided by one source and whether efforts were made to find other vendors.

Urgent Need or Emergency

Urgent Need

An "urgent need" is defined as a need that requires immediate action or attention to reduce the risk of material or monetary loss, damage to city property, or may pose a threat to public health, welfare, or safety. Any purchases of goods or services are to be made with a level of competition that is practical under the circumstances.

Urgent Need Process:

1. Determine the action needed
2. Evaluate budget capacity
3. Receive Director or designee approval
4. Contact Finance Director if need exceeds budgeted funds

Tips & FAQs

If you suspect a situation warrants an emergency declaration, please work with your Director to start the process.

Emergencies involving FEMA reimbursements may have different or additional requirements. Contact the Accounting Division for assistance tracking FEMA emergencies.

Declared Emergencies

For the purposes of this section, "emergency" means unforeseen circumstances beyond the control of the City that either (a) present a real, immediate threat to the public health, welfare, or safety or proper performance of essential functions where the City may suffer a substantial monetary loss; or (b) will likely result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken. Declared emergencies may be used for goods, services, and public works when the value is over the City's current bid limit(s) for each type of procurement.

Competitive bidding for a declared emergency may be waived subject to the following process:

1. Mayor declares an emergency.
2. Upon authority from the Mayor, work may be authorized and or equipment procured to address the emergency situation.
3. The department tasked with managing the emergency situation will work with the Purchasing Division to make a determination of the basis for the emergency, select the vendor, and issue a contract.
4. If a contract is awarded without competitive bidding due to an emergency, the department will schedule the contract award on the next City Council agenda.
5. The City Attorney will prepare materials necessary to ratify the emergency declaration finding no later than two weeks following the award of the contract.
6. A record of the emergency procurement shall be made at the next subsequent City Council meeting.

Tips & FAQs

Procard Policy

Emergency Petty Cash Policy

I will be purchasing a large piece of equipment that sells for approximately $12,000. I hope to be able to trade-in the old equipment for approximately $2,200. Do I have to get bids?

Yes – the bid limit is on the gross price, not the price after a trade-in.

Procuring Goods and Services

Small Purchases of Goods and Services

Small purchases are typically goods and services (excluding public works and A&E Services) under $10,000. Comparative quotes are encouraged for small purchases but are not required. Small purchases may be made using one of the following processes:

Process	Dollar Limit	Allowed Uses	Disallowed Uses
Credit Card (Procard) See Procard Policy for more details.	Up to $1,500 per transaction (up to $5,000 per month).	Business-related purchases such as seminar registration, subscriptions, office supplies, hotel reservations, maintenance supplies, etc.	Alcohol, capital equipment, cash advances, consulting or professional services, personal items, bid splitting, public works.
Purchase Requisition	Up to $10,000. Over $10,000 may require bidding process.	Business-related goods and services.	Personal items.
Emergency Petty Cash	Requests that exceed $100 require additional approval. See Petty Cash Policy for more details.	Anticipated expenditures in emergency situations only.	Same as credit card above, with the exception of cash advances.
Personal Reimbursement	No limit.	Small incidentals or approved travel-related expenses.	Same as credit card above.

Notes:

- Software or technology-related purchases require TIS Department approval prior to purchasing.
- Requests for temporary staff help require HR Department approval prior to purchasing.
- Purchases related to federal or grant funding may have lower bid requirement thresholds than the City's policies. The project or grant manager is responsible for understanding the applicable requirements prior to expending any of the awarded funds.

Common Terms

Purchase Agreement (PA) may be used in place of a PO when there is a need to apply multiple progress payments for project expenses or for open/blanket accounts where several different city account numbers may be charged for the goods purchased. A PA does not encumber funds against a budget. For that reason, the City is working toward using POs whenever possible instead of PAs.

Purchase Order (PO) is a legal contracting document used to place orders with suppliers or contractors and includes the City's terms and conditions related to the purchase.

Purchase Requisition is an internal record used by the City to communicate details of a request for purchase, which includes supplier information, budgeted account number(s), and approvals. Purchase requisitions should be entered into Microsoft Dynamics prior to placing an order for goods or services, to ensure the proper approval has been received prior to spending funds.

Purchase Requisition Instructions:

Non-Project

Project

Open Accounts/Orders for Goods and Services

The Purchasing Division has the authority to establish open account purchase orders or agreements for the purchase of routine supply-type commodities and services. Open orders are for periods not to exceed 12 months.

Types of Open Accounts

Open accounts may be for city-wide or department-specific use. The need for competitive bidding, authorization, and approval follows city policy, as noted in the tables reflected in the next section of this document.

Open Account – no competitive pricing

Items that are not typically stocked and needed just-in-time.

Allowed up to $10,000 annually without obtaining competitive quotes.

Departments must estimate annual needs prior to requesting an open account.

Open Account – competitive bid pricing

An account where the City has issued a solicitation or is piggybacking off another agency's solicitation.

Open Account – blanket order

Blanket orders or indefinite delivery/indefinite quantity purchases for specific products at a specific price that will be ordered over the course of the year.

Allowed up to $10,000 annually without quotes.

Departments must estimate annual needs prior to requesting an open account.

Large Purchases for Operating Supplies and Equipment; Operating Services, Repair and Maintenance; and General and Professional Services

City policy dictates that any purchase of material, supplies, equipment, or general services at an amount above $10,000 requires use of a competitive process. If a unique circumstance exists that makes competitive bidding impractical, the Department Director may waive the use of the competitive process. As noted below, certain dollar amounts require the Mayor's approval to waive the competitive process. Waivers must be provided to the Purchasing Division in writing, with the applicable approval, prior to issuing a contract or purchase order/agreement. Use of the Non-Competitive Procurement Justification Form is required.

The requirement for a competitive process is as follows:

TYPE OF PURCHASE	COMPETITIVE PROCESS
Operating Supplies & Equipment	
Up to $10,000	Informal quotes encouraged, but not required.
$10,001 - $50,000	Solicit 3 written bids. Director may waive use of competitive process.
$50,001 - $200,000	Solicit 3 written bids or issue IFB or RFP. Director may waive use of competitive process.
Over $200,000	Issue IFB or RFP. Mayor or designee may waive use of competitive process.

Operating Services, Repair & Maintenance and General Services	
Up to $10,000	Informal quotes encouraged, but not required.
$10,001 - $50,000	Solicit 3 written bids. Director may waive use of competitive process.
Over $50,000	Issue IFB or RFP. Mayor or designee may waive use of competitive process.

Professional Services	
Up to $10,000	Informal quotes encouraged, but not required.
$10,001 - $50,000	Solicit 3 written bids. Director may waive use of competitive process.
Over $50,000	Issue IFB or RFP. Mayor or designee may waive use of competitive process.

TYPE OF PURCHASE	COMPETITIVE PROCESS
Professional Services – Technology Services *Approval from TIS Department is required prior to purchase.*	
Up to $10,000	Informal quotes encouraged, but not required.
$10,001 - $50,000	Solicit 3 written bids. Director may waive use of competitive process, however if vendor chosen by competitive negotiation, must issue RFP.
Over $50,000	Issue IFB or RFP. Mayor or designee may waive use of competitive process; however, if vendor chosen by competitive negotiation versus lowest bid, must issue RFP.

Professional Services – Technology Services

Per RCW 39.04.270, when using a competitive negotiation process for the purchase of technology services (such as telecommunication systems, data processing equipment, or software), at a minimum, the following steps are required:

- A request for proposals (RFP) must be published in a newspaper of general circulation at least 13 days before the last date on which the proposals will be received.
- The RFP must identify significant evaluation factors, including price, and their relative importance.
- The municipality must provide a reasonable procedure for technical evaluation of the proposals, identification of qualified sources, and selection for awarding the contract.
- The award must be made to the qualified bidder whose proposal is "most advantageous" to the City. A city may reject all proposals for good cause and request new proposals.

TYPE OF PURCHASE	COMPETITIVE PROCESS
Instructional/Artistic Services	
Up to $10,000	Informal quotes encouraged, but not required.
$10,001 - $75,000	Solicit 3 written bids. Director may waive use of competitive process.
Over $75,000	Issue IFB or RFP. Mayor or designee may waive use of competitive process.
Note: Contracts over $25,000 required to have cost recovery	

TYPE OF PURCHASE	COMPETITIVE PROCESS
Contract Renewals or Extensions	
Up to $10,000	None if original agreement contained a renewal or extension provision.
$10,001 - $50,000	None if original agreement contained a renewal or extension provision. Otherwise, see applicable purchase type for bidding requirements.
Over $50,000	None if original agreement contained a renewal or extension provision. Otherwise, see applicable purchase type for bidding requirements.

Sole Source	
Up to $10,000	Provide a statement to support the sole source purchase.
$10,001 - $50,000	Provide a statement to support the sole source purchase.
Over $50,000	Provide a statement to support the sole source purchase.

Sole Source

Before a purchase can be considered sole source, the following steps must be documented:

- Department must have documentation of a screening process to justify the purchase of a specific product
- There are legitimate specifications that only one vendor can successfully bid or provide the product
- The product is only available through one manufacturer (or distributor, certified by the manufacturer)
- The vendor certifies that the City is getting the lowest price it offers anyone

If all of the above steps can be met, the purchase is most likely a sole source purchase. Use of the Non-Competitive Procurement Justification Form as the support statement is required to document the purchase.

Architectural and Engineering (A&E) Services

The City follows state statutes for contracting for architectural and engineering services. A roster for soliciting qualified firms is maintained electronically (currently MRSC Rosters). Consultants can register themselves and note their qualifications through the system. The City may also choose to advertise for the needed services.

A&E firms are selected based on a combination of qualifications, rather than cost, including the following:

- Evidence of the firm's ability to provide the required services
- The proposed scope of work provided
- The estimated number of hours necessary to complete the proposed scope
- A current statement of references and any other information which will be helpful in evaluating the applicant's qualifications for the proposed project

City staff should estimate the anticipated cost of the project and follow the applicable below competitive process.

TYPE OF PURCHASE	COMPETITIVE PROCESS
Architectural and Engineering (A&E) Services	
Up to $10,000	Advertise or review one or more statements of qualifications.
$10,001 - $50,000	Advertise or review at least 3 statements of qualifications from the current roster.
Over $50,000	Advertise or review at least 3 statements of qualifications from the current roster.

Reviewing Statement of Qualifications (SOQs) from women and minority business enterprises (WMBE) is encouraged whenever possible and should be consistent with the general availability within the current roster. See RCW 39.80.040 for specific language.

Projects receiving federal or state funds may need to meet more stringent requirements. In those cases, the federal or state requirements will rule.

Sources

Public Works RCW 39.04

Limitations on Work by Public Employees RCW 35.22.620

Public Works Small Works Roster RCW 39.04.155

Public Works Contracts, Bids, Small Works Roster RCW 35.23.352

Prevailing Wage Information

Washington State Department of Labor & Industries

Common Terms

Affidavit of Wages Paid is a document issued by L&I verifying that the appropriate prevailing wages have been paid on a particular city contract, as evidenced by the certified payroll documentation provided by the contractor.

Intent to Pay Prevailing Wages is a document issued by L&I, verifying that a contractor intends to pay (promises) the appropriate prevailing wages on a particular city contract.

Public Works

The term "public work" shall include all work, construction, alteration, repair or improvement, other than ordinary maintenance, on city assets. Public work generally includes labor, such as construction of new or replacement of sewer and water systems, drainage systems, public buildings and fixtures, and construction and repair of streets, sidewalks, and roads; all when for public use. For example, replacing a bridge or repaving a street are considered construction or repair and are a public work. Cleaning a roof or rodding a sewer system involves ordinary maintenance and are not considered a public work.

City employees may perform public works not exceeding 10% of the City's total construction budget, including any supplemental budgeted amounts (RCW 35.22.620). "City employee" refers to anyone (employee or agent) whom the City hires or contracts with to do a specific job.

The Purchasing Division can assist you with the public works process by obtaining quotes or issuing competitive bid documents. For capital projects in the amount of $50,000 or more, with a useful life of 5 years or more, the Public Works Construction Division manages the project bidding and contracting and prefers to use the Washington State Department of Transportation (WSDOT) contract language.

Prevailing Wage

Prevailing Wage is defined as the hourly wage, usual benefits and overtime, paid in the largest city in each county, to the majority of workers, laborers, and mechanics. Prevailing wages are established by the Department of Labor & Industries (L&I) for each trade and occupation employed in the performance of public work. They are established separately for each county and are reflective of local wage conditions.

Public works contracts require that each contractor on the project file a Statement of Intent to Pay Prevailing Wages (Intent) and an Affidavit of Wages Paid (Affidavit) when work is completed. These forms are required for every public works contract regardless of the size of the contract.

- If the work is $2,500 or less, including tax – and if the work will be paid for in a single payment – contractors must complete a Small Works "Combined" Intent & Affidavit form.
    - No fee for contractors to fill-out this form.
    - Owners/operators with no employees are still required to fill-out this form
    - A completed form must be provided to Accounts Payable before the contractor's invoice can be paid.

- If the work is over $2,500, including tax, contractors must file an Intent and Affidavit with L&I.
    - There is a fee for contractors to file each form.
    - The Intent should be filed immediately after the contract is awarded and before work begins, if possible.
    - The Affidavit must be filed by the contractor after the work is completed. The City may not release applicable retainage until all contractors have submitted an Affidavit form approved by the industrial statistician.

Retainage

RCW 60.28.011 requires the City to withhold up to 5% of the value of a public improvement contract, not including sales tax, according to Department of Revenue ETA 3024.2013, as retainage until the project is completed and the contract is accepted. This provides a financial incentive for contractors to finish a project, as well as a limited amount of financial protection for the involved parties. Instead of having retainage withheld from the contract payments, a contractor may opt to submit a retainage bond instead covering any or all of the amount. The City releases the retainage to the contractor after the project is completed, minus any claim amounts. All workers, subcontractors, and suppliers have lien rights against the retainage and can claim all or part of the money if the contractor does not pay them. In addition, the Department of Revenue, the Employment Security Department, and the Department of Labor and Industries all have lien rights against the retainage for payment of unpaid excise taxes, industrial insurance/workers' comp, and unemployment compensation. RCW 39.04.155(2)(f) allows the City to waive retainage for small works roster projects.

Bonds

RCW 39.08.010 requires public works contracts to use performance and payment bonds to guarantee that the contractor or the surety itself will complete the project and pay all subcontractors, workers, and suppliers. If the retainage is not enough to cover claims and unpaid fees, the performance and payment bonds will cover the remaining amount. Unlike retainage, the City has no direct lien rights against these bonds, unless the project is funded in whole or in part by federal transportation funds, or unless the bond was conditioned upon the payment of other outstanding taxes or penalties. Performance and payment bonds must usually be in the amount of 100% of the contract value. These bonds are typically furnished on city-provided forms. Performance and payment bonds may be waived for small works roster projects under $50,000, or the current statutory limit under the limited public works process. For public works contracts under $150,000, or the current statutory limit under RCW 39.08.010(3), the contractor may ask the City to waive the bonds and instead retain 10% of the contract amount for 30 days after the date of final acceptance, or until the receipt of all necessary releases from the Department of Revenue, the Employment Security Department, and the Department of Labor and Industries, whichever is later.

Determining the Cost

When contracting for a public works project, the first step is to determine the estimated cost for labor, materials, supplies, equipment, shipping, and applicable sales tax. The estimated cost must include all construction-related work and all phases of the project. Bid splitting to meet the spending levels and avoid the competitive process is not allowed. The estimated cost dictates the required process, as noted in the table below, which follows state statutes and RCW 39.04. The City's policy allows for any new levels or laws passed and noted in the RCW to be followed.

TYPE OF PURCHASE	COMPETITIVE PROCESS
Public Works	
< $75,500 single craft (RCW 35.23.352)	Obtaining several quotes is encouraged, but not required.
< $116,155 multiple craft (RCW 35.23.352)	Obtaining several quotes is encouraged, but not required.
< = to $350,000	Formal competitive bidding or small works roster in accordance with RCW 39.04.155.
Over $350,000	Formal competitive bid process.
Note: Sales tax on public works must be included in estimates.	

Bid Process and Evaluation

Competitive bidding is designed to prevent favoritism in awarding public works contracts and to enable the City to obtain the best work or supplies at the most reasonable cost.

For projects where bidding is not required, project managers should complete the following steps:

- Prepare a brief scope of work and cost estimate.
- Work with the Purchasing Division to determine the following requirements/needs:
    - Bonds
    - Prevailing wage requirements
    - Retainage, if applicable
    - Required permits
- Choose a qualified contractor. (The Purchasing Division can assist with finding a contractor or guide you through the small works roster process.)

Sources

Payment and Performance Bond Requirements
RCW 39.08

Retainage Requirements
RCW 60.28

For a general overview of the requirements for bonds or retainage, please review the information provided on the MRSC website.

- Create a purchase requisition in the financial system, Microsoft Dynamics, and attach the quote. The account number used for the project will dictate the workflow for approval.
- Authorization to proceed is given when the approved purchase order is provided to the contractor.
    - For public works projects using the WSDOT contract, authorization is given through a notice to proceed letter provided to the contractor.
- Prior to work starting, verify with the Purchasing Division that the required insurance certificate has been received by the City and that the contractor's Redmond Business License is current.

For projects that meet the need for a competitive process, project managers should complete the following steps:

- Prepare a scope of work and cost estimate.
- Determine the competitive process required and method to obtain bids either by advertising or using the small works roster. (See additional information on the small works roster noted in the following section.)
- Review bids, considering bid evaluation criteria noted in the following section.
- Work with the Purchasing Division to determine the following requirements/needs:
    - Bonds
    - Prevailing wage requirements
    - Retainage, if applicable
    - Required permits
- Create a purchase requisition in the financial system, Microsoft Dynamics, and attach the quote. The account number used for the project will dictate the workflow for approval.
- Authorization to proceed is given when the approved purchase order is created.
    - For public works projects using the WSDOT contract, authorization is given through a notice to proceed letter provided to the contractor.
- Prior to work starting, verify with the Purchasing Division that the required insurance certificate has been received by the City and that the contractor's Redmond Business License is current.

Sources

Small Works Roster
RCW 39.04.155

Municipal Research and Services Centers (MRSC)

MRSC Rosters
https://mrscrosters.org/

Tips and FAQs

I would like a list of contractors who can do roof repair work. How do I access the Small Works Roster?

The Purchasing Division can provide you access to the Roster or provide you with a list of contractors.

How often is the Small Works Roster updated?

In accordance with RCW 39.04.155 requirements, MRSC advertises annually on the City's behalf through legal statements to solicit vendors for the Small Works Roster. Vendors may register on the portal at any time during the year. All current vendors are required to update their profiles annually to maintain relevant contact information, certifications, and current business documents.

Small Works Roster

The City adopted use of a Small Works Roster process, made available under RCW 39.04.155, for public works projects that do not exceed $350,000, or current statutory bid limits. Currently, the City uses MRSC Rosters to manage its Small Works, Consultant, and Vendor rosters. Businesses can self-register through the MRSC website to receive notification of bid offerings when the City uses a roster process.

The following procedures are required when using the MRSC Small Works Roster for a project estimated to be $350,000 or less:

- Prepare IFB/RFP that includes an estimate of the scope and nature of the work to be performed and a list of the materials and equipment to be furnished. Detailed plans and specifications are not required to be included in the invitation.
- Utilize the City's MRSC account to identify potential bidders to send outreach notifications of city bid offerings.
    - Quotations may be invited from all appropriate contractors on the appropriate small works roster. As an alternative, quotations may be invited from at least five (5) contractors on the appropriate small works roster who have indicated the capability of performing the kind of work being contracted, in a manner that will equitably distribute the opportunity among the contractors on the appropriate roster.
    - If the estimated cost of the work is from two hundred and fifty thousand dollars ($250,000) to three hundred and fifty thousand dollars ($350,000), or the current statutory limits set forth in RCW 39.04.155, and if the City chooses to solicit bids from less than all of the appropriate contractors on the appropriate small works roster, then the remaining contractors on the appropriate small works roster must be notified that quotations on the work are being sought.
- Email bidders through the contact information acquired from MRSC Rosters. MRSC Rosters will prompt you to save your roster list. Keep your roster list to justify who was solicited.
- Review bids, considering bid evaluation criteria noted in the following section.
- Work with the Purchasing Division to determine the following requirements/needs:
    - Bonds
    - Prevailing wage requirements

- Retainage, if applicable
- Required licenses and permits

- Award to the lowest, responsive, responsible bid – see criteria on page 25.
- Immediately after an award is made, all quotes submitted must be recorded and made available to the public for inspection, or the bid figures must be supplied in response to public records requests and telephone inquiries.
- Create a purchase requisition in the financial system, Microsoft Dynamics, and attach the quote. The account number used for the project will dictate the workflow for approval.
- Authorization to proceed is given when the approved purchase order is provided to the contractor.
- For public works projects using the WSDOT contract, authorization is given through a notice to proceed letter provided to the contractor.
- Prior to work starting, verify with the Purchasing Division that the required insurance certificate has been received by the City and that the contractor's Redmond Business License is current.

Sources

Limited Public Works Process

Limited Public Works Process
RCW 39.04.155 (3)

The "limited public works process" is a type of small works roster process, as noted in RCW 39.04.155(3), that applies only to contracts estimated to cost less than $50,000, or the current statutory limit set forth in the RCW. The following are applicable when considering using the limited public works process:

- Solicit electronic or written quotations from a minimum of three (3) contractors from the appropriate small works roster.
- Award the contract to the lowest responsible bidder unless there is a compelling reason to reject all bids and cancel the solicitation.
- Quotations are to be made available to public inspection once the contract is awarded and are to be available by electronic request.
- The City may waive the payment and performance bond requirements of RCW 39.08 and the retainage requirements of RCW 60.28; however, the City retains the right of recovery against the contractor for any payments it makes on the contractor's behalf.

The City will maintain a list of the contracts awarded during the previous twenty-four months.

Tips & FAQs

Unit Priced (On-Call) Public Works Contracts
RCW 35.23.352 via RCW 35A.40.210

The City's paper of record is The Seattle Times.

Our RFP for new gas-powered lawn mowers received a bid for a diesel engine mower. After review, we prefer the diesel. Can we accept the bid?

No – the bid for the diesel mower is not responsive to the bid specifications. If the City wants to pursue the diesel engine mower, all bids need to be rejected and re-advertised.

Unit-Priced ("On-Call") Public Works Contracts

Unit-priced, on-call contracts are agreements where the City agrees to pay a defined unit-price for certain types of anticipated, but unplanned, work or trades over a certain time period. This type of contract allows for multiple or recurring projects without having to bid each project separately for items such as repair, renovation, or maintenance of public facilities. Unit-priced, on-call contracts are not associated with a specific project, do not guarantee any amount of work and do not establish a total dollar value, however, may cap the dollar value at a certain level over the life of the contract.

The contractor must be chosen by a competitive bid and agree to a fixed period, indefinite quantity of work, at a defined unit price for each category of work. When a specific project is identified, individual work orders are authorized based on either a not-to-exceed time and materials basis or a negotiated lump sum amount using the previously established unit prices.

The initial term of a unit-priced contract may not exceed three years. The option to extend one additional year after that is allowed.

Publication

Projects are required to be posted or advertised a minimum of 13 calendar days prior to the opening of bids. When using a weekly publication, the 13-day advertising period begins when the first of two advertisements is published.

Federal Aid Projects are required to be posted or advertised in the paper of record for a three-week period prior to the opening of bids. When using a weekly publication, the three-week advertising period begins when the first of three advertisements is published.

The notice should state the title of the project, the work to be done, the date and time set for the opening of bids, the location where plans and specifications are available for public inspection, the cost to obtain a set of plans and specifications, and the requirements for the bid bond. If no bids are received at the first call, the City may re-advertise and call for bids again, or may proceed to negotiate a contract with any qualified supplier or do the work with city personnel. (Note: certain limits may apply if the work is performed by City personnel.)

Bid Errors and No Bids

A bid must substantially comply with the procedures or specifications if it is to be considered. Bids that do not comply must be rejected. However, an "insubstantial variance" from certain specifications or procedures will not

Tips & FAQs

Will my contractor need a City of Redmond Business License?

Maybe – a license is required if the contractor physically comes into the City to conduct business or provide services on behalf of the City. The license must be obtained by the contractor prior to performing any work and must be maintained in good standing throughout the term of the agreement with the City.

Please use this link for additional information on Business Licensing

Labor Laws
RCW 49.48.082

prevent the City from considering a bid. As a general rule, an immaterial or insubstantial variance is one that does not give a bidder a substantial advantage over the other bidders.

Bid amount errors are of two types: (1) those that favor the City, where the bidder makes a mistake that causes the bid to be lower than it should be, or (2) those that favor a bidder, where the mistake causes the bid to be higher than it should be. These errors, which are relevant only when they affect the lowest, responsible bid, are governed by some general rules as follows:

- A bidder is bound by the bid amount. The courts will not reform (that is, correct) a contract because of an error, even an obvious one, in the bid amount.
- A city is not necessarily bound by the bid amount.
- The bidder who submitted the erroneous low bid may withdraw the bid, at the risk of forfeiting the bid bond.

Bidder Responsibility

It is the intent of the City to award a contract to the lowest, responsible bidder. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required to submit documentation to the City to validate compliance with the criteria. Before the City can accept a bid, the bidder must:

- Be a registered contractor at the time of bid submittal
- Have a current Unified Business Identifier (UBI) number
- Have industrial insurance/worker's comp coverage
- Have an Employment Security Department number
- Have a state excise tax registration number
- Not be disqualified from bidding under RCW 39.06.010 or 39.12.065(3)
- Not have any apprenticeship violations, if applicable
- Certify through a sworn statement that they are not a willful violator of labor laws in reference to RCW 49.48.082
- Have complied with public works and prevailing wage training requirements as defined by RCW 39.04.350

If the City determines a bidder is not responsible, the City must provide the reasons for the determination in writing. A bidder can appeal the determination within the time period specified in the bidding documents by presenting additional information to the City. The City must consider the additional information before issuing its final determination. If the final determination affirms that the bidder is not responsible, the City may not execute a contract

with any other bidder until two business days after the bidder determined to be not responsible has received the final determination.

Subcontractor Responsibility

Public works contractors and subcontractors are required to ensure that any subcontractors hired directly meet the responsibility criteria for the project at the time of subcontractor execution.

Bid Evaluation

Bids are to be evaluated considering the following list or as specified in the bidding documents:

- The dollar amount of the bid
- The extent to which the bid and bidder meet stated requirements and specifications
- Ability to perform the contract within the time specified
- The bidder's experience and reputation for satisfactory work, judgment, and integrity
- Results of prior dealings with the bidder by public or private contracting agencies
- The previous and existing compliance by the bidder with laws relating to the contract or services
- Projected impact on city operational efficiency and availability of budgeted funds
- Ability to apply recycled product procurement policy guidelines

Change Orders

A change order is the formal document that alters some condition of the public works contract document. A change order may alter the contract price, schedule of payments, completion date, or the plans and specifications. Any change order that significantly changes the scope or price of the project is required to go back through the applicable approval process.

Public Works Projects Up to $300,000

The Council has provided the Mayor signing authority for public works projects up to a value of $300,000. The Mayor has in turn delegated approval authority to the Department Director, or their designee, who is authorized to approve small public works contract change orders up until the total contract value meets or exceeds $300,000. Change orders that take the total contract value over $300,000 must be approved by the Chief Operating Officer, Finance Director, or Mayor.

Tips & FAQs

Are change orders routed through the City Clerk's Office for approval?

Yes – change orders need to be provided to the City Clerk's Office. The process also provides the Clerk's Office a copy of the documentation to be filed with the original contract.

Tips and FAQs

Do I have to file a Notice of Completion for all projects?

No – a Notice of Completion is only required to be filed for public works projects where the amount is $35,000 or more, including tax.

Public Works Projects Over $300,000

The Mayor has also delegated approval of change orders to the Department Director or designee(s) for an accumulation of up to 10% of the original contract award amount. Accumulated change orders greater than 10% of the original contract award amount must be approved by Chief Operating Officer, Finance Director, or Mayor. If senior management determines further approval is needed, items will be presented to Council for approval.

Project Close Out

Project close out for public works projects over $35,000, including tax, must follow these steps:

- Verify all contractor paperwork is received.
- Complete final pay estimate.
- Confirm invoices to 3rd parties have been processed (if applicable).
- Obtain City Council acceptance if applicable.
- File a Notice of Completion with the Department of Labor & Industries, Department of Revenue, and Employment Security Department (this step is completed by the Purchasing Division for non-CIP projects).
- Validate that the City has received certificates of release from the Department of Labor & Industries, Department of Revenue, and Employment Security Department, certifying that all applicable taxes, premiums, and penalties have been paid.
- Release the retainage if applicable.

Payments for Goods and Services

The City's Accounting Division manages the accounts payable function. All packing slips, invoices, and supporting documentation related to receiving goods and services should be forwarded to the Accounts Payable Division with a reference of the PO noted on the documentation.

City policy requires that goods and services must be received before payment can be made. Consideration to waive that requirement must be received in writing and state a justification for the advance payment. The Finance Director or Fiscal Services Manager have the authority to waive the policy.

National Institute of Government Purchasing (NIGP) Commodity Codes

The City uses a standardized set of commodities called NIGP codes to ease the categorization of its business needs. The codes assist with finding available suppliers for products and services, tracking expenditures by type of goods, services, or supplier, and are used to provide notification to applicable vendors when posting the City's requests for bids and proposals. A complete list of NIGP codes can be found on the City's intranet page (a link is provided in the sidebar).

Accurate NIGP codes are required to be noted on invoices and/or entered into Microsoft Dynamics when preparing a purchase requisition. For assistance identifying the proper NIGP code, please contact the Purchasing Division.

Sources

NIGP Codes

IV. PROTECT THE CITY

Code of Ethics

All purchasing should be conducted in compliance with the City's Employee Conduct Policy, Section 11.10 of the Personnel Manual.

City of Redmond Personnel Manual
Sections 11.10 and 11.50

Conflict of Interest

As a public entity, city purchasing activities must be conducted in an open, competitive manner so that any supplier wishing to do business with the City is given a fair opportunity and equal access to city bid offerings. All purchasing activities require compliance with the City's Employee Conduct Policy, Section 11.50 of the Personnel Manual.

Code of Ethics for Municipal Officers
RCW 42.23

Employees at all levels should avoid both real conflicts of interest and the appearance of conflicting interests in the purchase of goods and services for the City. Purchases of goods and services are prohibited from any supplier (company/business) owned or controlled by a city employee or their immediate family. Requests for contracting with, or payment to, such suppliers will not be honored by the City.

Unauthorized Purchases

Using city funds or a Procard for purchases of items for personal use is not allowed. The person ordering the unauthorized and unjustified purchase is personally liable for the costs of the purchase or contract and may be subject to disciplinary action.

If a purchase was made without proper authorization, but is in fact a justified purchase, the Department Director has the option to approve the purchase after

the fact. Approval and signing authority will be dictated by the guidelines surrounding the type of purchase as noted under the Authority Section of this document.

Personal Gifts to be Declined

Personal gifts or gratuities that might influence or give the appearance of influencing the requisition or purchase of material(s) must be declined.

Insurance Requirements

The Risk Management Division of the Finance Department establishes and maintains a risk review program relating to contractual agreements entered into by the City with other entities or persons. Almost every contract will provide some elements of risk language that are standard; some will depart from the standard. These deviations may require special insurance requirements or language relating to assumptions of risk.

In general, the City requires the following insurance levels:

Type	Insurance Certificate	General Public Liability	Professional Liability	Notes / Footnotes
Artistic Services Agreements	Varies			See City contract language.
Concessionaire Agreements	Required	$2,000,000		
Cyber Liability Insurance	Varies			If Contractor has access to City data. See Information Privacy and Security Agreement (IPSA)
Special Events Use Agreements	Required	$1,000,000		
Art Display and Indemnity	Varies			See City contract language.
Instructional Services Agreements	Required	$1,000,000	$1,000,000	Professional liability insurance required if commercially available in Agency's field of expertise.
Social/Community Services Agreements	Required	$1,000,000	$1,000,000	Professional liability insurance required if commercially available in Agency's field of expertise.
Non-Public Work Consultant Agreements	Varies	$2,000,000	$2,000,000	Professional liability insurance required if commercially available in Agency's field of expertise.
Non-Public Work General Services Agreements	Required	$2,000,000	$2,000,000	Professional liability insurance required if commercially available in Agency's field of expertise.
Three Party Consultant Agreements	Required	$2,000,000	$2,000,000	Professional liability insurance required if commercially available in Agency's field of expertise.
Public Work Consultant Agreements (for Architects, Engineers & Surveyors)	Required	$2,000,000	$2,000,000	
Public Works Construction Agreements (short form)	Required	$5,000,000		Unless lower limits apply due to WSDOT terms or other grant terms / conditions
Public Works Construction Agreements (standard form)	Required	$5,000,000		
Public Works Construction Agreements (Federal Funds)	Required	$5,000,000		

Definitions

Practicable means sufficient in performance and available at a reasonable cost.

Recyclable Products are products, which, after their intended end use, can be diverted from the City's solid waste stream for use as a raw material in the manufacture of another product.

Recycled Products are products manufactured with waste material that has been recovered or diverted from solid waste.

Sustainable Purchasing

Purpose

The City of Redmond recognizes that waste reduction, recycling, and purchasing recycled products are important elements of sound waste management. To support recycling and promote the development of markets for recyclable materials, the City prefers the purchase of recycled products whenever they are available at a reasonable price.

Policies

Departments will use recycled and recyclable products whenever practicable.

Recycled paper will be used for copiers and printers. Letterhead, envelopes, and business cards used by departments will be printed on recycled paper. A price preference not exceeding 10% is allowed for recycled paper purchases for this purpose. Printing will be done two-sided when practicable.

When requesting proposals, the City will encourage its contractors and consultants to:

1. Use recycled paper for proposals, printed or photocopied material.
2. Use both sides of paper.
3. Recommend recycled alternatives to virgin materials.

Environmental factors to consider in selecting products include:

- Pollutant releases
- Waste generation
- Greenhouse gas emissions
- Recycled content
- Energy consumption
- Depletion of natural resources, and
- Potential impact on human health and the environment

V. AUTHORITY

Approval Authority

Review and approval of various procurement actions are an important part of the process and a critical component of the City's internal controls. Those who have been granted approval authority are required to be mindful of the following considerations when approving procurement documents:

- Is it within policy or applicable law?
- Do you have the appropriate delegated authority to approve?
- Does the purchase serve an appropriate business and public purpose?
- Is the information accurate? (dollar amount, quantity, account numbers, available budget)
- Does the amount, vendor, and frequency seem reasonable?
- Does it meet all ethical procurement practices (no conflicts of interest or personal gain, applicable quotes were obtained, etc.)?

The City Council has authorized the Mayor to approve purchases identified in the City's budget process which includes the purchase of supplies, equipment, and routine maintenance and repairs as noted in the following tables. When a purchase or project requires a contract or agreement, additional approval may be required. Signature authority has been granted to the Mayor for agreements or contracts up to an annual value of $50,000 with two exceptions: authorization is increased to $75,000 for instructional services and $300,000 for public works. The Mayor has the authority to delegate signing authority to others as noted in the tables below. (Note: in the authority noted below, COO refers to Chief Operating Officer.)

TYPE OF PURCHASE	**REQUIRED AGREEMENT/CONTRACT APPROVALS** ***Note: Purchase requisitions or invoices require NBU owner approval through the financial system.***

Operating Supplies & Equipment – Annual Amount	
Up to $10,000	Delegated by Mayor to Director or Designee
$10,001 - $50,000	Delegated by Mayor to Finance Director or COO
$50,001 - $200,000	Delegated by Mayor to Finance Director or COO
Over $200,000	Delegated by Mayor to Finance Director or COO

Operating Services, Repair & Maintenance and General Services – Annual Amount	
Up to $10,000	Delegated by Mayor to Director or Designee
$10,001 - $50,000	Delegated by Mayor to Finance Director or COO
Over $50,000	Delegated by Mayor to Finance Director or COO

Professional Services – Annual Amount	
Up to $10,000	Delegated by Mayor to Director or Designee
$10,001 - $50,000	Delegated by Mayor to Finance Director or COO
Over $50,000	Council provides authorization for the Mayor or designee to sign

Professional Services – Technology Services – Annual Amount	
Up to $10,000	Delegated by Mayor to Director or Designee
$10,001 - $50,000	Delegated by Mayor to Finance Director or COO
Over $50,000	Council provides authorization for the Mayor or designee to sign

Instructional/Artistic Services – Annual Amount	
Up to $10,000	Delegated by Mayor to Director or Designee
$10,001 - $75,000	Delegated by Mayor to Director or Designee
Over $75,000	Council provides authorization for the Mayor or designee to sign
Note: Instructional contracts > $25,000 required to have cost recovery.	

Contract Renewal – Annual Amount	
Up to $10,000	Delegated by Mayor to Finance Director or COO
$10,001 - $50,000	Delegated by Mayor to Finance Director or COO
Over $50,000	Delegated by Mayor to Finance Director or COO *No approval required by Council for a renewal if the original contract contained renewal provisions.*

A contract that has no renewal options or has expended all renewal options will need to be rebid and approved within the guidelines for the classification of purchase type. An extension, however, may be used to extend a completion date for a short amount of time when there is no dollar cost or if additional time is required to complete a bidding process. Approval from the Department Director or designee is required for short term extensions.

Sole Source – Annual Amount	
Up to $10,000	Delegated by Mayor to Director or Designee
$10,001 - $50,000	Delegated by Mayor to Finance Director or COO
Over $50,000	Council provides authorization for the Mayor or designee to sign

Intergovernmental Cooperative Purchasing Agreements	
No Limit	Finance Director or Designee

Interlocal (Interagency) Agreements, Grants	
No Limit	Council provides authorization for the Mayor or designee to sign

Architectural and Engineering (A&E) Services – Project Amount	
Up to $10,000	Delegated by Mayor to Director, Finance Director or COO
$10,001 - $50,000	Delegated by Mayor to Director, Finance Director or COO
Over $50,000	Council provides authorization for the Mayor or designee to sign

Public Works – Project Amount	
< $75,500 single craft	Delegated by Mayor to Director, Finance Director or COO
< $116,155 multiple craft	Delegated by Mayor to Director, Finance Director or COO
> $75,500 - $300,000 single craft	Delegated by Mayor to Director, Finance Director or COO
> $116,155 - $300,000 multiple craft	Delegated by Mayor to Director, Finance Director or COO
Over $300,000	Council provides authorization for the Mayor or designee to sign
Public Works – Change Orders (CO)	
Project cost <= $300,000	
CO increases project cost <= $300,000	Delegated by Mayor to Director or Designee
CO increases project cost > $300,000	Delegated by Mayor to Finance Director or COO
Project cost > $300,000	
Accumulated <= 10% of project cost	Delegated by Mayor to Director or designee
Accumulated > $10%	Delegated by Mayor to Director, Finance Director or COO. May require Council authorization.

VI. CONTRACT ADMINISTRATION

The City Council sets general policy and guidelines for the expenditure of city funds. Council decisions are communicated through the City's budgeting process whereby the Mayor has been granted authority to administratively carry out the expenditure decisions identified in the budget document.

The City Council has the authority to bind the City in all contracts and agreements. The Council has chosen to delegate a significant portion of this authority to the Mayor, who in turn has delegated selected signing authority to the Chief Operating Officer (COO), Finance Director, Department Directors or their designee(s). (See Approval Section.) City contract signing authority is noted in the relative City Resolution, currently No. 1503.

Routing

Prior to routing a contract for approval, several steps must be taken to ensure the contract package has the correct information included. If a contract requires Council approval, that must be obtained prior to routing for signatures. The supplier/contractor is typically required to sign documents first. However, exceptions may include state or county contracts, where the City may be required to sign first.

Prior to sending a contract package for signature, the following is required:

- Obtain approval from the Department Director to proceed.
- Obtain approval from the TIS Division if the services are technology-related.
- Develop the applicable city contract. (The Purchasing Division can assist with choosing the correct contract for your project/purchase.)
    - If you are not using a city contract, you may need to review the substitute contract with the City Attorney. Check with your Department Director to determine if it is necessary to have the City Attorney's review prior to routing.
- Consider the need for additional required documents, such as the Information Privacy and Security Agreement (IPSA) if the contractor has access to city data or the Business Associate Agreement (BAA) if a contractor has access to protected health information.
- Attach the Scope of Work obtained from either the competitive process or create one to ensure the terms of services and applicable timelines are clear.
- Review the payment terms. If anything is other than Net 30 days, contact the Purchasing Division for assistance. Any leases, loans, required monetary deposits, or programs implementing the acceptance of payments

Contract Types

The Purchasing Division can assist you with selecting and obtaining a standard city contract.

The following standard city contracts are available:

Art Display and Indemnity

Artistic Services

Consulting Services

General Services

Instructional Services

Instructional Services, On-Site Training

Review Panel

Short-Term Facility Rental

Social/Community Services

Three Party Consultant

Trading Partner

The following standard contracts for Public Works are available:

Small Construction Contract

Supplemental Consultant Agreement

Consultant Agreement – Federal Aid

Consultant Agreement – A&E

Washington State Dept. of Transportation (WSDOT) Agreement – used for CIP projects

must be reviewed with the Finance Director or Fiscal Services Manager prior to proceeding.
- Attach any applicable Exhibits or Addendums.

The City uses a DocuSign workflow and routing form, to electronically route contracts and amendments for signature. Please contact the Purchasing Division if you have questions about the DocuSign contract routing process. After a contract has been fully executed, the City Clerk's Office requires a copy, for record-keeping.

Duration of Contracts

Professional and general services contracts may have a duration of any combination of years, up to 4 years for the initial term. Additional language may be included for renewals up to two 2-year extensions.

Public works and architectural and engineering contracts typically cover the duration of a project and should match the scope of work.

Exceptions to contract duration may be granted by the Department Director or designee for the following:

- Significant cost savings can be realized.
- Benefits of a shorter contract are outweighed by the costs of a competitive process.

Administration

Contract administration means any activity related to contracting, including the decision to contract, screening, selection, preparation, monitoring, auditing, and post-contract follow-up. When initiating a contract on behalf of the City, the contract manager is responsible for the following:

- Understanding the contract, including the specific contract obligations and performance indicators by which performance will be monitored.
- Assessing the risks related to the project before soliciting proposals and contracting, to determine the extent of the monitoring appropriate to the contract.
- Ensuring the contractor has a clear understanding of how the contract will be managed and monitored.
- Providing the contractor with guidance and technical assistance, as needed, to promote effective contract performance.
- Identifying the extent and source of funding for services provided.
- Monitoring the contractor's activities to ensure quality service delivery.
- Reviewing invoices and verifying delivery of goods/services is validated.

Tips & FAQs

Link to the City's contracts

When a contract is ready for signatures, who signs first?

The vendor/contractor signs the documents before the City. Note: if a contract requires Council approval, that approval must be obtained before the contractor signs.

How do I add a renewal provision to my contract?

When a contract doesn't specifically note renewal terms, you can add the information with a separate Exhibit. The Purchasing Division can help you with the appropriate language.

Tips and FAQs

If my contract expires next year and I have no renewals left, how early should I start planning for an RFP?

It depends on how complex the desired services are and whether other areas of the City should be included in the planning. The Purchasing Division suggests you start planning for bidding at least 6 months prior to expiration. You'll want to prepare a scope of work, build an evaluation team, and consider if the service involves a significant implementation of new services. You may also need to allow time for notifying City Council, obtain approval to proceed, negotiating terms, and planning for changes in processes.

Contract Renewals, Amendments or Extensions

Contracts or agreements may have various terms that either plan for renewal periods or allow for some type of contingency or extension. The following is to be used as a guide for planning ahead, when contracts are negotiated and/or come to the end of the agreed-to term.

Renewals

When a contract has a renewal period specifically incorporated in the terms, no bidding is required to be able to renew the contract. Approval of the contract renewal is as noted in the Authority Section. It is important to note that if the dollar amount of the contract renewal is at a level that Council would typically approve, but the renewal provisions were clearly noted in the original contract sent through them, then there is no need to take the agreement back through Council for approval of the renewal. Contracts that originally specified a renewal may be extended with an amendment rather than a new contract or solicitation. Any changes in cost or minor changes in scope must be documented. Amendments for renewals must be routed through the applicable approval authority.

Amendments or Supplemental Agreements

Contract Amendments or Supplemental Agreements are considered changes to existing contracts. Changes to contracts may be processed as Amendments or Supplemental Agreements, rather than as new contracts, only if the changes are within the general scope of the original contract. Examples of an Amendment or Supplemental Agreement are items such as clarifying a date within the original scope, a minor clarification of terminology, or extending a short amount of time to complete a project without an increase in the cost. The Mayor has delegated approval of Amendments and Supplemental Agreements to the Director or designee for minor changes.

Changes within the scope of contracted terms that represent substantial increases in the quantity, cost, or nature of the work may not be appropriate for contract Amendments or Supplemental Agreements and may need to be addressed as a new procurement. In situations of this nature, please contact the Purchasing Division for assistance with determining the next steps. Approval authority for substantial changes would need to be routed through the applicable approval authority.

Extensions

Extending a contract or service when no renewal terms were included in the original contract, or the contract has exhausted all renewal periods, may require a bidding process. Please see the appropriate classification of desired goods or services for the bidding requirements.

Tips & FAQs

Can I accept an electronic signature for city contracts?

Yes – contracts may be executed with a third-party electronic signature service such as DocuSign.

Use of Electronic Signatures for City Business

The City Council passed Resolution No. 1498 authorizing the use of electronic signatures. In accordance with the Electronic Signature Policy, electronic signatures may be used in the same way that physical signatures may be used.

Electronic Signature Policy

The policy of the City is to enable employees to conduct city business through the use of electronic signatures where desired when such use is consistent with these guidelines.

Employee Responsibilities When Using Electronic Signatures

All city employees who utilize electronic signatures in the conduct of their duties will have reviewed these polices to ensure that, to the best of their ability, the guidelines herein are followed.

Authorization for the Use of Electronic Signatures

Electronic signatures consistent with this policy may be used by the City in the same way that physical signatures may be used. City staff may rely on electronic signatures which are consistent with this policy in the same way staff relies on physical signatures.

Definition of Electronic Signatures

Electronic signatures include an electronic sound, symbol, or process –

- A variety of digital objects may serve as an electronic signature when provided in the context as approved by the Finance Director consistent with this policy.
- The electronic signature must clearly be associated with the related paper or process intended to be attested to.
- The signature must be verifiable as part of the underlying record (e.g., a clear indication of the electronic signature must be maintained as part of the documents or process being attested to).
- The signature must have been executed or adopted by a person with an intent to sign the record as appropriate based on the nature of the document.

Authorized Electronic Signatures

The Finance Director, in consultation with the City Clerk, Human Resources Director, City Attorney, and Director of Technology and Information Services shall authorize acceptable forms and uses of electronic signatures.

In authorizing specific forms and uses of electronic signatures, the Finance Director shall take into account the benefits as well as the risks. The following table illustrates the type of analysis that is consistent with this section.

Use Cases	Degrees of Risk				
	Very Low	Low	Medium	High	Very High
Employee Signing Timecard	■				
Supervisor signing personnel action notice	■	■			
Electronic purchase orders		■			
Class participant signing waiver			■		
Open bids			■		
Standard form contracts			■		
Interlocal Agreements			■		
Negotiated contracts				■	
Sealed Bids				■	
Real property documents					■

The type of electronic signature authorized may vary relative to the nature of the risk. For example, a process indicating concurrence as an electronic signature may be used for low or very low risk cases, but not for medium or high-risk cases. For high-risk cases, the electronic signature should take the form of a digital signature through an approved third-party process which includes verification of the specific intent to sign, an approved signature methodology, and maintenance of evidence of the electronic signature. Therefore, a risk assessment of those charged with authorizing the specific forms and uses of electronic signatures should be part of the approval process.

Acceptable Forms of Electronic Signatures

The following electronic signature types are authorized for use:

Very Low Risk - A process indicating approval or authorization

- Employee timecards
- Personnel action notices for performance reviews and administrative changes
- Performance reviews conducted with city software (NeoGov)

Low Risk – A digital object indicating approval or authorization (such as a signature image)

- Purchase orders
- Personnel action notices for any action not already authorized

Medium Risk – Use of a third-party electronic signature service (such as DocuSign)

- Class participant waivers
- Facility lease documents
- Open bids
- City standard form contracts
- Interlocal agreements

High Risk – Use of a third- party electronic signature service (such as DocuSign) which has been licensed as a certification authority (CA) by the Washington Secretary of State

- Non-standard form contracts

Very High Risk – Digital signatures are not authorized for very high-risk use cases

- None

References

RCW 19.34 - WASHINGTON ELECTRONIC AUTHENTICATION ACT

Electronic Signature Guidelines – Published by the Office of the Chief Information Officer, State of Washington http://des.wa.gov/sites/default/files/public/documents/About/rules/ESignProcedure.pdf

Digital Signatures – Washington State Secretary of State's Office https://www.sos.wa.gov/ea/

Glossary of Terms for Electronic Signatures

Unless the context clearly requires otherwise, the definitions in this section apply throughout this chapter:

"Accept a certificate" means to manifest approval of a certificate, while knowing or having notice of its contents. Such approval may be manifested by the use of the certificate.

"Accept a digital signature" means to verify a digital signature or take an action in reliance on a digital signature.

"Certificate" means a computer-based record that:

Identifies the certification authority issuing it
Names or identifies its subscriber
Contains the subscriber's public key
Is digitally signed by the certification authority issuing it

"Certification authority" means a person who issues a certificate.

"Certification authority disclosure record" means an online, publicly accessible record that concerns a licensed certification authority and is kept by the secretary.

"Certify" means to declare with reference to a certificate, with ample opportunity to reflect, and with a duty to apprise oneself of all material facts.

"Digital signature" means an electronic signature that is a transformation of a message using an asymmetric cryptosystem such that a person having the initial message and the signer's public key can accurately determine:

a. Whether the transformation was created using the private key that corresponds to the signer's public key; and
b. Whether the initial message has been altered since the transformation was made.

"Electronic" means electrical, digital, magnetic, optical, electromagnetic, or any other form of technology that entails capabilities similar to these technologies.

"Electronic record" means a record generated, communicated, received, or stored by electronic means for use in an information system or for transmission from one information system to another.

"Electronic signature" means a signature in electronic form attached to or logically associated with an electronic record, including but not limited to a digital signature.

"Hold a private key" means to be authorized to utilize a private key.

"Incorporate by reference" means to make one message a part of another message by identifying the message to be incorporated and expressing the intention that it be incorporated.

"Issue a certificate" means the acts of a certification authority in creating a certificate and notifying the subscriber listed in the certificate of the contents of the certificate.

"Licensed certification authority" means a certification authority to whom a license has been issued by the secretary and whose license is in effect.

"Message" means a digital representation of information.

"Private key" means the key of a key pair used to create a digital signature.

"Public key" means the key of a key pair used to verify a digital signature.

"Recipient" means a person who has received a certificate and a digital signature verifiable with reference to a public key listed in the certificate and is in a position to rely on it.

"Recognized repository" means a repository recognized by the secretary under RCW 19.34.400.

"Repository" means a system for storing and retrieving certificates and other information relevant to digital signatures.

"Subscriber" means a person who:

Is the subject listed in a certificate;
Applies for or accepts the certificate; and
Holds a private key that corresponds to a public key listed in that certificate.

"Time stamp" means either:

To append or attach a digitally signed notation indicating at least the date, time, and identity of the person appending or attaching the notation to a message, digital signature, or certificate; or
The notation thus appended or attached.

"Valid certificate" means a certificate that:

A licensed certification authority has issued;
The subscriber listed in it has accepted;
Has not been revoked or suspended; and
Has not expired.
However, a transactional certificate is a valid certificate only in relation to the digital signature incorporated in it by reference.

"Verify a digital signature" means, in relation to a given digital signature, message, and public key, to determine accurately that:

a. The digital signature was created by the private key corresponding to the public key; and
b. The message has not been altered since its digital signature was created.

New Shuttle Service Area

City of Redmond, Washington

Redmond
WASHINGTON

0 0.15 0.3
Miles

N

Disclaimer: This map is created and maintained by GIS Services Group,Technology and Information Services, City of Redmond, Washington, for reference purposes only.

The City makes no guarantee as to the accuracy of the features shown on this map.

City Limit

Downtown

Park

On-Demand Shuttle

Hotel/Parking/LRT Station

Proposed Bus Line

Light Rail Line

The following documents are other supporting documents for the Redmond Regional Mobility Grant Application. These include links for the Local Plans and Coordination section of the application, an in-depth explanation of our VMT/VT calculation methodology, and the full Redmond 2050 Transportation Element.

Local Plans and Coordination Links

Redmond 2050 Plan: 2024_01-10-Transportation-Element-Final-Draft---Att-A---Element-and-Appendices-PDF (redmond.gov)

Redmond Tourism Plan: Redmond-Tourism-Strategic-Plan-FINAL-DRAFT

Redmond Downtown Strategic Parking: 2020_0831-Redmond-Parking-Implementation-Plan-PDF

City of Redmond RMG Application VMT and VT Methodology and Data Memo

Background

Based on LEHD data (2021), 24650 residents or 68% of Redmond's population commute for work to outside of the City. Among these commuters, 25% of them are traveling to Seattle and 16% to Bellevue. For the rest 32% of residents are working inside the City limits, 77% of them working in Overlake. In 2022, only 6% of commuters in Redmond traveled by transit (American Community Survey, 2022). However, things are anticipated to change with the operation of the LRT and existing transit-related service.

Currently, the City of Redmond has two transit centers that provide Park & Ride (P&R) services, Redmond Transit Center (RTC) and Bear Creek P&R. Based on the 2023 Fall data from Metro, the utilization rate of the P&R services at Redmond Transit Center (RTC) is at 99% capacity, which means almost all of 373 parking spaces are filled up daily. As for the Bear Creek P&R, a half of the 147 total spaces are currently in use daily. The following table presents a summary of 2023 Fall daily ridership at stops near P&R services with route details.

Table 1. Fall 2023 daily ridership

Stop ID	Stop Name	Avg Daily Ons	Avg Daily Offs	Route
98750	RTC Bay 1	103	135	250
71951	NE 83 & 164	43	321	545
71954	RTC Bay 6	363	9	545
81755	Bear Creek P&R	397	362	250, 269, 545, 982

Based on the results of both P&R utilization rate and ridership, we already identify an intense need for regional transit trips by both residents in Redmond and those outside travelers from east King County (Sammamish, etc). With the operation of the new light rail service connecting Redmond to Bellevue and Seattle (in near future), we foresee considerable LRT ridership as well as an increasing demand for P&R services. However, it seems like the P&R service at RTC is the most convenient and only choice for the residents from the North of Redmond (e.g. Education Hill) or those from Woodinville and Kirkland. In addition, the north part of Redmond seems to have limited access to Downtown: the existing and proposed transit services operate at 30 minutes headway, even at peak hour. Thus, improving the connections for residents from both inside and outside of north Redmond is one of the City's highest priorities.

Table 2 presents the sum of potential VMT reduction for local and regional trips. It should be noted that We do not have enough information to make a reasonable assumption for Year 4, thus we add the same number to Year 1 in Year 4. However, we would anticipate this number to grow as the program expanding to more hotels and businesses within Redmond. The methodology details are presented in the following sections.

Table 2. The sum of potential VMT and VT reduction in our project

Type of trip	Description	Year 1 VMT(VT)	Year 4 VMT(VT)
Local	VMT reduction of local trips after introducing shuttle services to access downtown	41,184 (56,160)	92,664 (112,320)
Regional	VMT reduction of regional trips by Redmond commuters who work in Seattle or Bellevue	1,900,600 (155,889)	1,900,600 (155,889)

System area

As shown in Figure 1, we propose an on-demand service area that provide shuttle services to Downtown Redmond. The east part of the service area covers a high density of residential parcels and only one bus line operating at a 30-minute headway is available for access to Downtown. The western portion of the service area has a higher number of jobs of and workers commuting from outside of Redmond are anticipated to use the shuttle services after traveling by the LRT. Service area in Downtown includes several hotels as well as other businesses and parks that are not within a walkable distance to the Downton LRT station.

This project also proposes available parking spaces for P&R users at three facilities, including Redmond Town Center (1806 parking spaces), Opportunity Building (130 parking spaces), and Westpark (500 parking spaces). The following goals are a 20% utilization rate at the Opportunity Building and Westpark and a 10% utilization rate at Redmond Town Center for P&R services, which equals to 310 total parking spaces available for accessing either shuttle or LRT service.

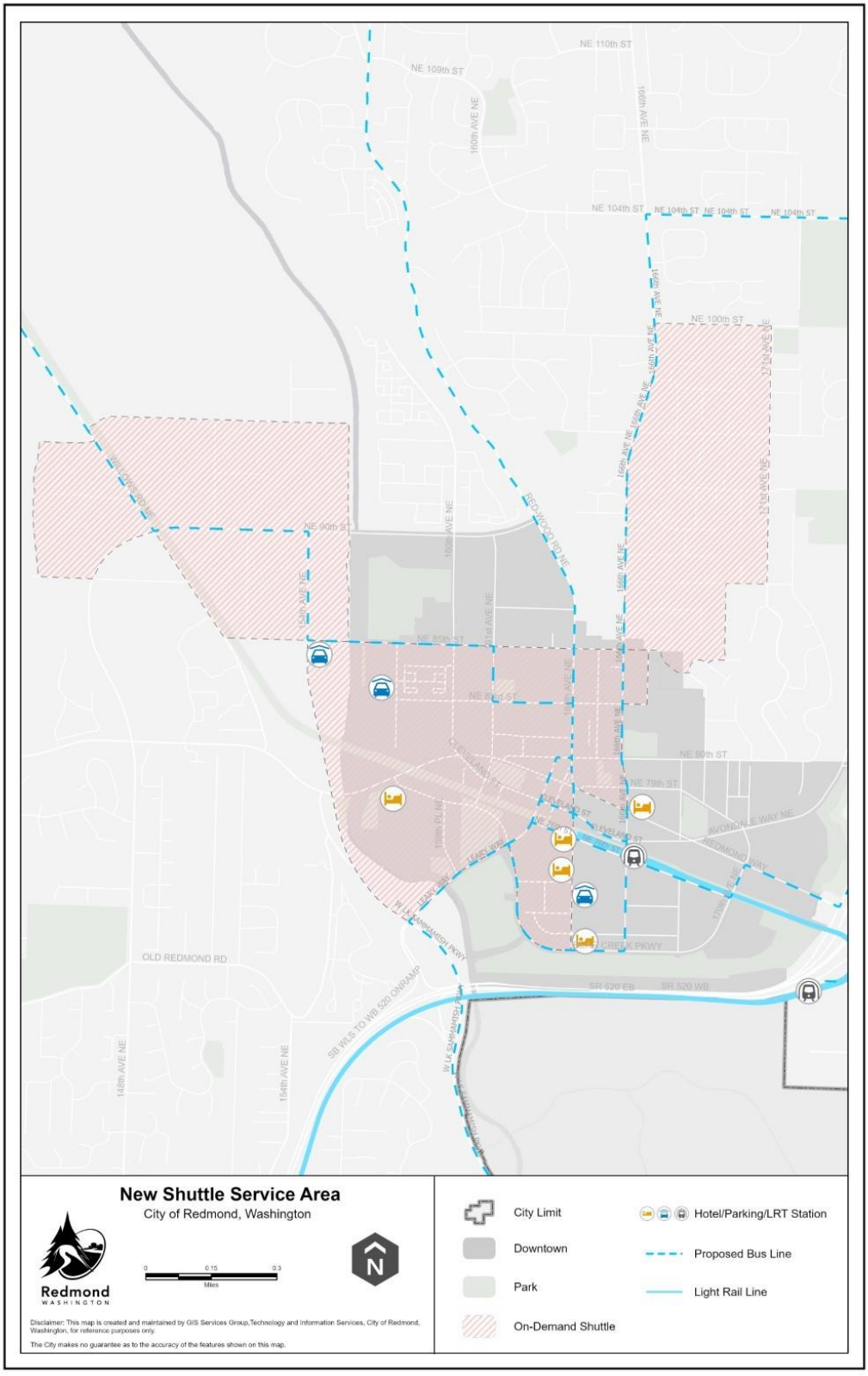


Figure 1. System map

VMT Estimation

As our project not only involves local trips but also regional transportation trips, we will discuss the VMT estimation case by case.

Local VMT estimation

Following the application instructions, we consider our project is a similar scenario to new bus service methodology example. Since on-demand services have different characteristics compared to the bus services (e.g. no fixed-route), we made reasonable adjustments to the methodology.

First, we choose the BellHop, an on-demand shuttle service, operating in the City of Bellevue, WA, as our comparable example. BellHop has been operating for 10 months and has served 73k passengers in total. We propose the same-sized vehicles as BellHop's, which has 5 seats available. According to BellHop data, the current utilization rate is at 30%.

Second, we assumed a 10-min headway for our on-demand service. In addition, our services operate 12- hours a day during the weekdays.

Third, instead of assuming the passengers will travel for a quarter of the fixed route, we use the average travel distance between the tracts that service areas that are within and the Downtown (Replica data, 2023 Fall). It should be noted that our service area falls into three different tracts (the smallest analysis unit from Replica data), thus we discuss the VMT estimation case by case.

Fourth, the route distance for new service is based on the center of service area in each tract to LRT using Google.

Table 3 presents the local VMT estimation for our service area.

Table 3. Local VMT estimation

On-Demand Service (East										
Year 1		**Capacity**	**Utilization Rate**	**Number of Passenger per trip**	**Net number of trips**	**Number of the trips per day**	**VT**	**Average distance passengers will travel**	**Route distance for new service**	**VMT**
		5	0.3	2	1	72	18,720	1.12	1	23,213
Year 4	**Growth Rate**			**Number of Passenger per trip**	**Net number of trips**		**VT**			**VMT**
	10%			3	2		37,440			44,179
On-Demand Service (West										
Year 1		**Capacity**	**Utilization Rate**	**Number of Passenger per trip**	**Net number of trips**	**Number of the trips per day**	**VT**	**Average distance passengers will travel**	**Route distance for new service**	**VMT**
		5	0.3	2	1	72	18,720	0.99	1.8	3,370
Year 4	**Growth Rate**			**Number of Passenger per trip**	**Net number of trips**		**VT**			**VMT**
	10%			3	2		37,440			21,902

On-Demand Service (Downtown										
Year 1		Capacity	Utilization Rate	Number of Passenger per trip	Net number of trips	Number of the trips per day	VT	Average distance passengers will travel	Route distance for new service	VMT
		5	0.3	2	1	72	18,720	0.64	0.5	**14,602**
Year 4	Growth Rate			Number of Passenger per trip	Net number of trips		VT			VMT
	10%			3	2		37,440			**26,582**
									Total	
									Year 1	**41,184**
									Year 4	**92,664**

In total, 41,184 VMT are saved after the first year of operation and 92,644 VMT are saved in Year 4.

Regional VMT estimation

Currently, we do not have any regional travel data as well as LRT user data. It is hard to make assumptions on what percentage of commuters that are traveling by automobile before will use LRT instead. Thus, we follow the assumptions for local VMT estimation and discuss different scenarios based on available information.

1. Assume the LRT users from Woodinville and use LRT to Seattle

In this case, we assume passengers will use parking facilities at Redmond Town Center, which equals to 6.9 miles per one-way trip per person. If this commuter drove directly to Seattle, it would take 21-miles per one-way trip, per person on average. For a single working day, the user of LRT saves 28.2 VMT per person with the P&R service this project provides, which equals to 7,332 VMT per year, per person.

2. Assume the LRT users from North Redmond and use LRT to Bellevue

In this case, we assume passengers will use parking facilities at Westpark (3.3 miles per trip per person) and take a shuttle to the LRT station (1.3/2=0.65 miles per trip, per person since normally two people are onboard), which equals to 3.95 miles per one-way trip per person. If this commuter drove directly to Bellevue, it would account for 12-miles per one-way trip, per person on average. For a single working day, the use for LRT and shuttle services saves 16.1 VMT per person, which equals to 4,186 VMT per year, per person.

3. Assume 3% of commuters whose workplaces are in Seattle use LRT for commute

Based on LEHD data (2021), 3% of the Redmond-Seattle commuters are 220. In this case, we use the average trip distance from all other tracts in Redmond to Downtown Redmond, 1.21 miles (Replica, 2023 Fall), as the travel distance for the Redmond residents accessing shuttle services. It takes 0.55 miles on average for each trip accessing LRT per person. If they drive directly to Seattle, it will take 16 miles per one-way trip, per person on average. For a single working day, the user of the LRT and shuttle services save 28.5 VMT per person, equal to 1,630,200 per year for all 220 commuters.

4. Assume 5% of commuters whose workplaces are in Bellevue use LRT for commute

Based on LEHD data (2021), 5% of the Redmond-Bellevue commuters are 80. In this case, we assume the residents from North of Redmond are more likely to use LRT services. Similar to Case 3, we use the average trip distance from tracts North of Redmond to Downtown Redmond, 1.42 miles, as the travel distance for the Redmond residents accessing shuttle services. It takes 0.55 miles on average for each trip accessing LRT per person. If they drove directly to Seattle, it would be 8.5 miles per one-way trip per person on average. For a single working day, the user of LRT and shuttle services saves 13 VMT per person, which equals to 270,400 per year for all 80 commuters.

Table 4 presents a summary of different scenarios for regional trips. It should be noted that we do not have enough data to make assumptions on future ridership of LRT. Thus, we only present how VMT estimates after the first year of operation of the shuttle service.

Table 4. Summary of different scenarios for regional trips

Origin	Destination	P&R service location	Travel distance use shuttle/P&R service	Travel distance by automobile	VMT per year per person	VMT per year	VT 1
Woodinville	Seattle	Redmond Town Center	6.9	21	7,332		520
North Redmond	Bellevue	Westpark	3.95	12	4,186		520
Redmond	Seattle	-	1.76	16	7,410	1,630,200 for 220 commuters	114480
Redmond	Bellevue	-	1.97	8.5	3380	270,400 for 80 commuters	41409

Note1. VT is estimated based on VMT/(total distance by automobile-travel distance use shuttle and P&R services). We do not consider the local VT in the regional trips' calculation.

In summary, both P&R services and shuttle services play critical roles in both local and regional trip VMT reductions.

Attached here is the City of Redmond Comprehensive Plan Transportation Element. This is a final draft that has not yet been adopted by City Council but will be in the near future. Page 9 of the Transportation Element highlights the policies that demonstrates the Redmond Regional Mobility Grant application program's compliance with established goals and policies within the city.

Transportation

Vision Statement

In 2050, most Redmond community members live, work, or play, within a short distance of frequent transit or have convenient access to comfortable and connected pedestrian and bicycle networks, enabling affordable and sustainable mobility for many trips.

In 2050, Redmond's transportation system is resilient, and this resiliency is often experienced by what *doesn't* happen. Deployment of traveler information and advanced technology has improved overall system efficiency and made it easier to recover from localized disruptions like collisions or flooding. Completion of accessible and active transportation networks allows travelers to avoid vehicle congestion. Using diverse funding streams has enabled the City to stay on track with investments that improve resiliency.

In 2050, Redmond's transportation system is equitable and inclusive. The City has consistently invested in infrastructure and programs that benefit the entire community, especially those who cannot or choose not to drive. A child walks with a friend and grandparent to soccer practice. The teenager with a summer job takes the bus to work in Downtown and to hang out with friends in the evening. The resident who uses a wheelchair when patronizing local businesses in Marymoor Village can count on clear sidewalks and curb ramps. Students in Overlake ride bikes to school using a network of comfortable, safe, and convenient bicycle facilities.

In 2050, Redmond's transportation system is sustainable. Focusing growth around light rail and frequent transit enables more people to enjoy low-carbon mobility. The adoption of zero-emission vehicles and supporting infrastructure has helped Redmond achieve its greenhouse gas reduction goals for transportation. Redmond's infrastructure is efficiently operated and maintained. The City funds maintenance, preservation, repair, and replacement of assets to minimize life-cycle costs and support sustainability goals. Redmond's focus on accessible and active transportation systems has resulted in an integrated system that allows more people to thrive.

Comprehensive Plan Guiding Principles

The following policies in this element support the Redmond 2050 guiding principles of equity and inclusion, resiliency, and sustainability.

Equity and Inclusion	Resiliency	Sustainability
• TR-6.7 thru TR-9 • TR-11, TR-12 • TR-14, TR-16 • TR-21 • TR-29, TR-31 • TR-47	• TR-4 thru TR-6 • TR-22 • TR-26 • TR-33 • TR-38 • TR-43 • TR-47	• TR-4 • TR-9 • TR-10 thru TR-12 • TR-14 thru TR-17 • TR-21 thru TR-22 • TR-27 thru TR-28 • TR-29 thru TR-31 • TR-32 thru TR-35 • TR-38 • TR-39 thru TR-40 • TR-42 thru TR-44 • TR-47

Existing Conditions

Background

Mobility is foundational to opportunity and quality of life. The Transportation Element describes how Redmond will develop and maintain its transportation system to provide mobility for people, goods, and services in a way that advances equity and inclusion, resiliency, and sustainability. The policies in the Transportation Element provide the framework for the Transportation Master Plan and for transportation-related development regulations. The Transportation Master Plan guides Redmond's transportation investments and activities, while transportation-related development regulations implement policy through new development.

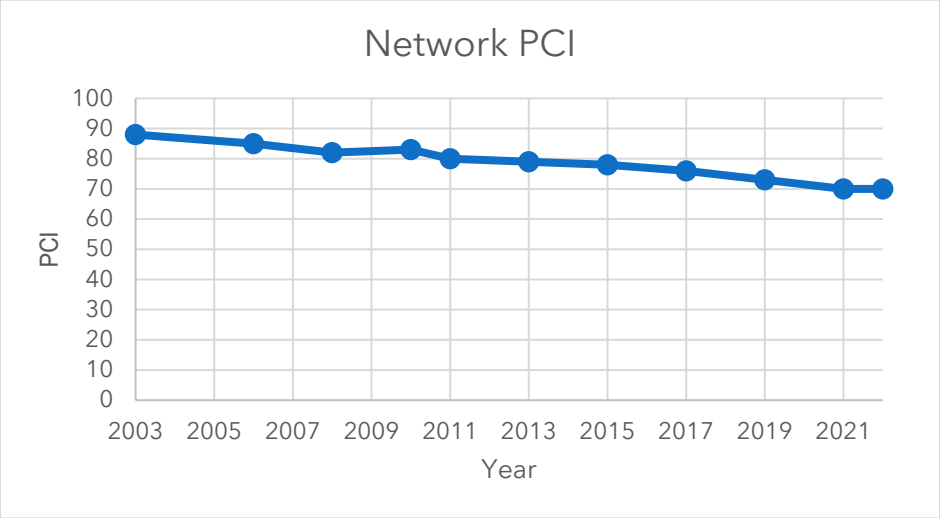
The same growth assumptions contained in Table LU-1 in the Land Use Element were used for the Transportation Element. Neighboring cities are assumed to develop in a pattern consistent with VISION 2050 and King County Countywide Planning Policies. Land use and transportation forecasts for these surrounding areas were developed by the Puget Sound Regional Council and are integrated into the assumptions underlying Transportation Element policies.

Current Conditions

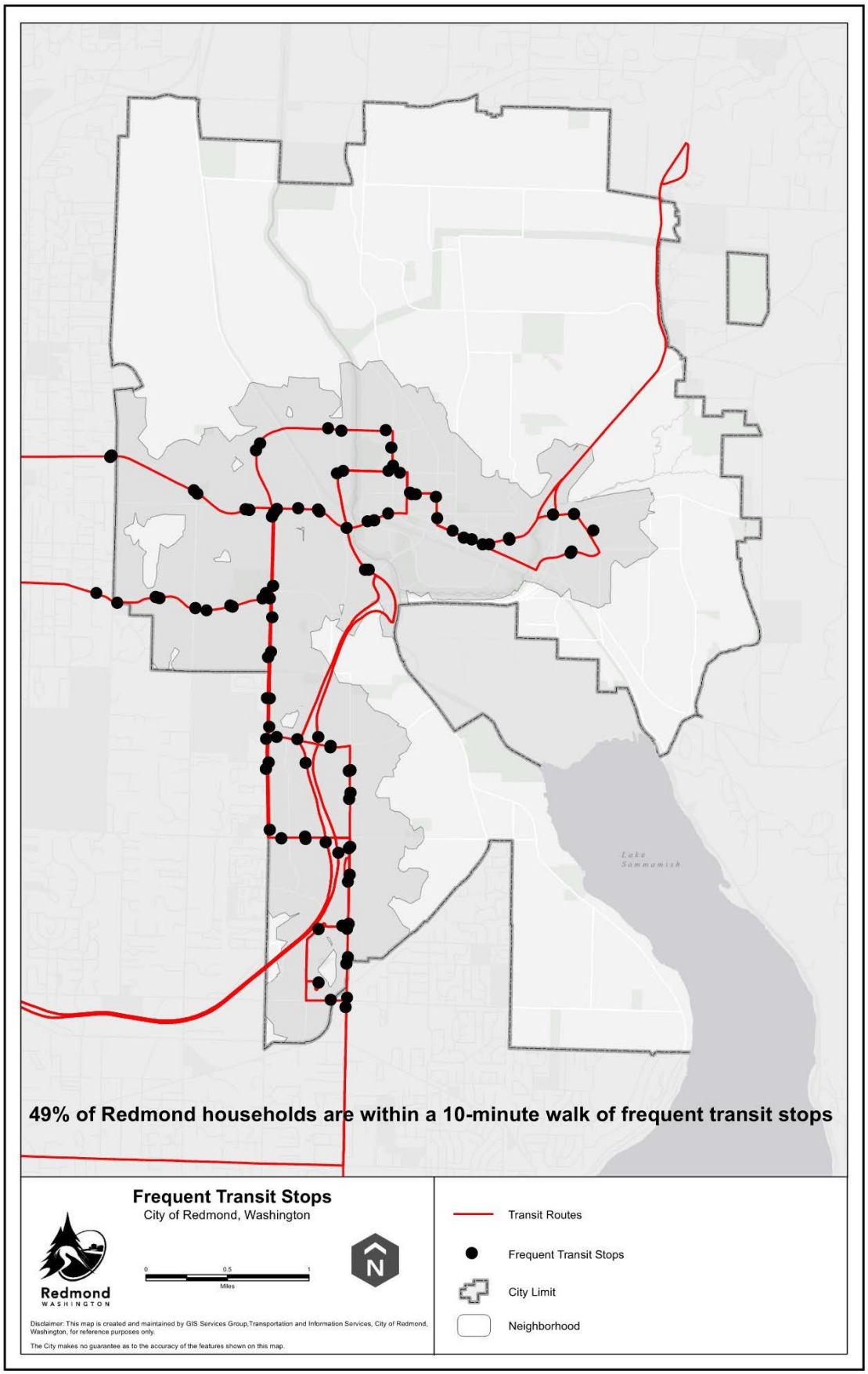
Redmond's Transportation System

Note: section has been partially updated with 2023 data. Additional graphics are expected to be available in summer 2024.

As of 2023, Redmond's street system comprises 197 centerline miles of streets ranging from the SR 520 freeway that supports regional mobility to local streets that provide property access. Redmond's pavement condition is worsening as infrastructure ages. The performance target for pavement management is an average pavement condition index (PCI) score above 70, out of a possible 100. The current average score is 70, down from 75 in 2013. The average for arterials is in the low 60's.

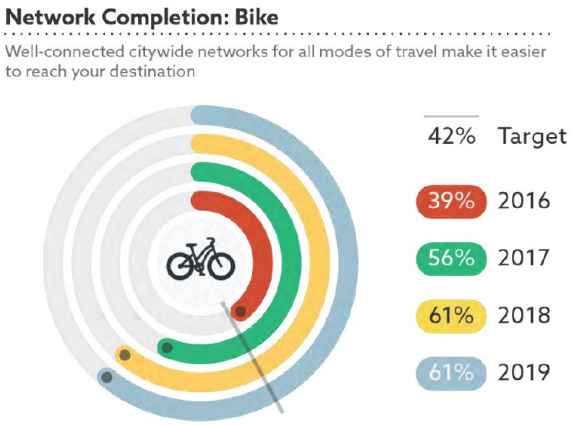


King County Metro Transit and Sound Transit operate public transit service in Redmond. Together they operate 14 bus routes, including five that operate no less frequently than every 15 minutes. These services put about half of Redmond households within a half-mile of frequent transit.

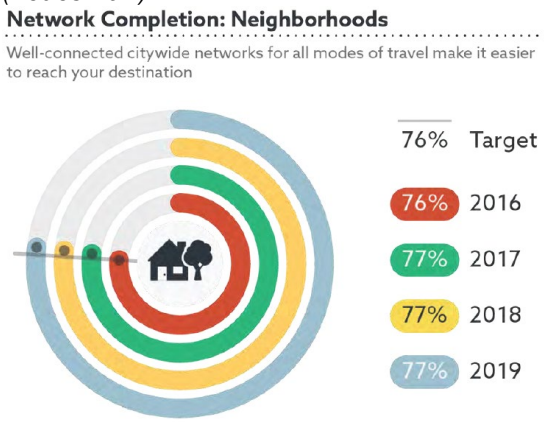

49% of Redmond households are within a 10-minute walk of frequent transit stops
Frequent Transit Stops
City of Redmond, Washington
Redmond
WASHINGTON
0
0.5
1
Miles
N
Disclaimer: This map is created and maintained by GIS Services Group, Transportation and Information Services, City of Redmond, Washington, for reference purposes only.
The City makes no guarantee as to the accuracy of the features shown on this map.
Transit Routes
Frequent Transit Stops
City Limit
Neighborhood
Lake Sammamish

Redmond's pedestrian system comprises 249 miles of sidewalks and paved trails. Of this, 226 miles are sidewalks. Redmond owns about 5,000 curb ramps on these sidewalks. While ramps were generally ADA compliant when constructed, approximately 80 percent are not compliant with current ADA standards, including locations where there should be a ramp but there is not a ramp.

Redmond's bicycle system comprises 76 miles of bicycle facilities, including bicycle lanes (56 miles), shared lanes (1.6 miles), and shared paths (14.2 miles) that are also counted as part of the pedestrian system.



(Pedestrian)



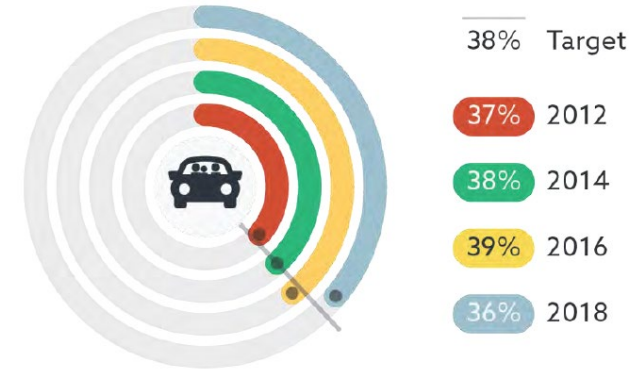
Redmond maintains a 36-mile two-tier freight route system that includes "primary truck streets," "truck access streets," and the SR 520 freeway. Primary truck streets accommodate through truck traffic in Redmond. They are arterials that directly connect with regional roadways like SR 520 or that currently have high volumes of trucks and are predicted to have high volumes of trucks in the future. Truck access streets connect the major industrial and commercial area in the Southeast Redmond neighborhood with primary truck streets.

More detail about Redmond's transportation system can be found in the Transportation Master Plan.

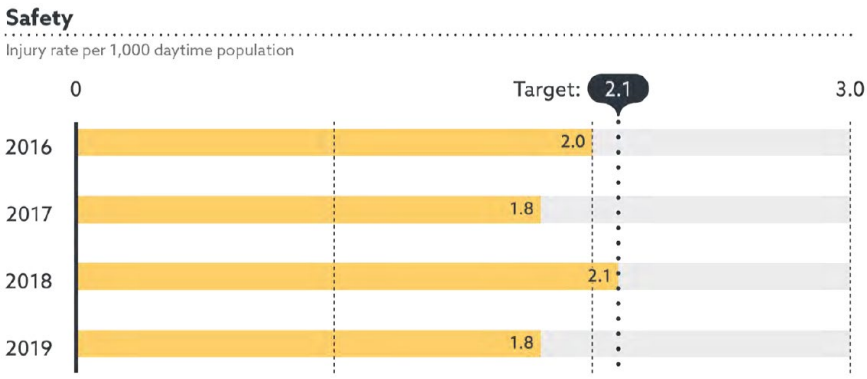
Other Selected Performance Measures

Concurrency

Mode Share



Safety



Policies

The policies below describe essential characteristics of Redmond's transportation system. The system must support the land use vision, it must be safe, and it must be flexible as conditions change.

FW-TR-1 Plan, design, build, operate, and maintain a safe transportation system that advances an equitable, inclusive, sustainable, and resilient community by providing for the mobility and access needs of all.

TR-1 Ensure that all components of the transportation system serve to achieve the preferred land use pattern contained in the Land Use Element.

TR-2 Develop a Vision Zero Action Plan that incorporates a whole-City and whole-community approach to achieving zero deaths and serious injuries.

TR-3 Maintain flexibility in the face of technological innovation, changes in mobility patterns, natural disasters, and other sources of uncertainty and disruption.

TR-3.5 Require consistency with the Parks, Arts, Recreation, Conservation, and Culture (PARCC) Plan and all modal plans in the Transportation Master Plan (TMP) in the review of development applications.

Maintain Transportation Infrastructure

Redmond's transportation infrastructure is aging, highlighting the importance of maintenance and lifecycle planning. The City must proactively assess, plan and budget maintenance and repair needs so that infrastructure can be maintained at or returned to acceptable condition.

In addition to existing facilities, Redmond is also building new types of facilities to achieve its vision, that have new and different maintenance requirements. As new facility types are constructed, the City must plan and account for their maintenance needs and costs so that they can be kept in good repair.

FW-TR-2 Maintain the transportation system in a state of good repair for all users.

TR-4 Design and build a transportation system that can be efficiently operated and maintained.

TR-4.5 Identify level-of-service standards for transportation infrastructure and fund maintenance, repair, and replacement costs to meet them. Proactively manage and maintain transportation assets in a way that minimizes lifecycle costs and results in replacement or renovation in advance of need.

TR-5 Maximize the safety benefits of transportation system maintenance.

TR-6 Design and build a resilient transportation system. Develop and update incident and disaster prevention and recovery strategies and coordinate them with local and regional partners.

TR-6.5 Manage public right-of-way to maintain multimodal mobility while recognizing the need for occasional closures for maintenance, construction or special events. Discourage interruptions to comfortable and convenient walking, bicycling, and transit use.

Improve Travel Choices and Mobility

Transportation systems exist to provide mobility for people, goods, and services. Advancing equity and inclusion, sustainability, and resiliency requires redoubling our efforts to improve mobility for those who get around primarily without a personal vehicle. To that end, this section of the Transportation Element contains policies for the different transportation modes that provide mobility, such as walking, bicycling, and riding transit. It also includes policies for roadways, recognizing that automobiles remain an important way of providing mobility. The policies in this section are implemented through projects and programs that are described in the Transportation Master Plan, as well as through standards and regulations in the Redmond Zoning Code.

FW-TR-3 Complete the accessible and active transportation, transit, freight, and street networks identified in the Transportation Master Plan in support of an integrated and connected transportation system.

Equity in Mobility

VISION 2050 describes an equitable transportation system as one that is effective, affordable, and provides access to opportunity especially for those who do not drive (see box). Those who do not drive are disproportionately people with low incomes, people of color, people with disabilities, and both the young and elderly. Though incorporated in 1912, Redmond was developed mainly as a car-oriented post-World War II suburb, solidifying dependence on private vehicles for most mobility. Thus, advancing equity means investing in travel modes that improve mobility for those who do not drive.

> *An equitable transportation system supports broad mobility and connectivity, prioritizes an effective and affordable public transportation network that supports transit-dependent communities, and provides access to core services and amenities, including employment, education, and health and social services. It includes providing access to transportation choices for all, ensuring that travel times to key destinations are reasonable for all people, and requires assessing how the region can better connect places that have low access to opportunity to places that have more opportunity. (VISION 2050)*

Black, Indigenous, and People of Color have been disproportionately harmed by decisions made about the transportation system. Across the United States, BIPOC neighborhoods have been disproportionately negatively affected by transportation infrastructure siting decisions, such as where interstate highways were built. BIPOC communities are also disproportionately impacted by pollution from transportation activities since those communities were historically excluded from locating in neighborhoods less affected by such pollution. To advance equity and inclusion, Redmond must especially consider the impacts of transportation decisions on communities who have been disproportionately harmed by past decisions.

TR-6.7 Implement transportation programs, projects, and services that support the independent mobility of those who cannot or choose not to drive.

TR-6.9 Use signage and other wayfinding techniques that meet regulatory requirements while reaching those with limited English proficiency or limited sight, especially near transit stations and stops.

TR-7 Implement transportation programs, projects, and services that prevent and mitigate the displacement of communities that have been disproportionately harmed by past transportation siting decisions, as well as those at high risk of displacement.

TR-8 Develop a transportation system that minimizes negative health and environmental impacts to all, especially those who have been disproportionately affected by past transportation decisions.

TR-9 Prioritize transportation investments that reduce household transportation costs, such as investments in transit, bicycle and pedestrian system access, capacity, and safety.

Accessible and Active Transportation

People who cannot or prefer not to drive should have comfortable and efficient transportation choices. Roadway, sidewalks, trails, designated bicycle areas, and other areas of public circulation should be designed to provide the highest level of safety for the protection of human life and to ensure that there are transportation choices for people of all ages and abilities. An integrated, safety-oriented, accessible and active transportation system advances equity and inclusion, sustainability, and resiliency. It increases independent mobility, reduces reliance on single-occupant vehicles, provides convenient access to schools, centers, transit, parks, and other recreation areas, and encourages regular physical activity to enhance health and wellness.

TR-10 Adopt and implement an Active Transportation Plan and ADA Transition Plan as part of the Transportation Master Plan that results in connected neighborhoods with safe, comfortable, and convenient access to opportunity in Redmond and the region.

TR-11 Prioritize the comfort, safety, and convenience of people using pedestrian and bicycle facilities over other users of the transportation system. Establish standards for bicycle and pedestrian facilities to attract users of all ages and abilities. Prioritize improvements that address safety concerns, connect to centers or transit, create safe routes to school, and improve independent mobility for those who rely disproportionately on the pedestrian and bicycle network.

TR-12 Ensure that all sidewalks and curb ramps are accessible to all people, including those with disabilities.

Transit: Organize Around Light Rail

Transit plays a critical key role in providing local and regional mobility. King County Metro and Sound Transit operate public transit service in Redmond. Locally, transit connects homes, jobs, goods, and services in and around Redmond. Regionally, VISION 2050 and the King County Countywide Planning Policies call for channeling growth into regional growth centers and linking of these centers with light rail and other forms of transit. Redmond's Comprehensive Plan designates centers in Downtown, Overlake, and Marymoor Village that warrant investment in light rail transit to provide both local and regional connections.

TR-14 Adopt and implement a Transit System Plan in the Transportation Master Plan that connects people to homes, education, jobs, goods and services, and other opportunities in Redmond and the region, especially those who lack affordable mobility options.

TR-15 Implement transit to connect people in all Redmond neighborhoods to centers, light rail, and other neighborhoods, considering a full suite of transit options appropriate to the land use context.

TR-16 Use transit to support equitable, inclusive, sustainable, and resilient transit-oriented communities, especially in Downtown, Overlake, and Marymoor Village.

TR-17 Integrate transit facilities and services and non-motorized infrastructure with public spaces and private developments to create safe and inviting waiting and transfer environments. Consider opportunities for public arts and culture amenities in these areas.

Streets

Redmond's streets collectively serve all modes of travel including passenger vehicles, trucks, transit, bicycles, and pedestrians. To accomplish that, the policies below call for classifying streets by function, establishing design standards for streets, and ensuring that Redmond's streets are "complete streets".

Streets also impact the character of a place. Wide streets with fast moving traffic are loud, contain higher levels of pollutants, and are generally inhospitable to people. Narrow streets with slower-moving vehicle traffic and comfortable places to walk and bike contribute to public health, social wellbeing, and the appeal of a place. Implementing finer street grids, especially in Redmond's centers, offers opportunities for individual streets to be built with fewer – or no – vehicle lanes. This is because there are more choices for turning and access.

TR-18 Adopt and implement a Street Plan in the Transportation Master Plan that results in multimodal access and connectivity in Redmond and the region. Require that all streets be complete streets, built to accommodate travel modes as defined in the Transportation Master Plan, and be no wider than necessary.

TR-19 Maintain a street classification system in the Street Plan that is designed to move people by a variety of modes and support Redmond's preferred land use pattern. Classify streets according to function so that system capacity may be properly allocated by mode and planned street improvements will be consistent with those functions.

TR-20 Establish and implement standards in the Transportation Master Plan for the design, construction, and operation of streets. Ensure that the standards address modal plans; context-sensitive design; environmental protection; property access; continuity of the street pattern; block size; access management; curb lane use; utilities placement; parking for cars, bicycles, buses, and other vehicles; and the comfort and safety of all users.

TR-22 Use advanced technology to improve system efficiency, disseminate traveler information, and improve data collection for system management.

TR-23 Maintain a traffic control program based on the fundamentals of education, enforcement and engineering for evaluating and responding to traffic safety and operational concerns. Maintain standards for maximum desirable traffic speeds and volumes. Apply a hierarchy of traffic control responses based on the severity of the traffic problem.

Enhancing Freight and Service Delivery

The movement of goods and services is a critical component of Redmond's transportation system. Southeast Redmond is an Eastside freight hub, where long-haul trucks arrive with goods that are then sent to destinations across the Eastside in smaller vehicles. Meanwhile, small businesses and customers throughout Redmond depend on the reliable movement of goods and services to thrive. Between long-haul arrivals and short-haul deliveries, Redmond's entire street system is used in the movement of goods and services. Between 2017 and 2050, the Puget Sound Regional Council forecasts that freight transported within Washington state will increase by more than 40%, and that imports and exports will grow by more than 50%.

TR-25 Adopt and implement a Freight Plan in the Transportation Master Plan that results in the safe and efficient movement of goods and services to, from and within Redmond. Consider the needs of freight operators, businesses, residents, and consumers.

TR-26 Monitor freight and service delivery patterns and adjust transportation system operations if warranted.

Transportation Demand Management

Transportation Demand Management (TDM) encompasses the range of actions and strategies that offer alternatives to driving alone. TDM focuses on more effectively using existing and planned transportation capacity, helps accommodate growth consistent with land use objectives, and serves to better meet mobility needs.

TR-27 Use TDM techniques to achieve efficient use of transportation infrastructure, increase person-carrying capacity, reduce air pollution, and accommodate and facilitate future growth.

TR-28 Establish TDM program requirements in the Transportation Master Plan that address Commute Trip Reduction Act requirements, support City mode split goals, address participation in transportation management associations, address mitigation funding from developments requiring TDM, and incorporate TDM support for non-commute/non-employer-based sites such as schools. Establish proactive methods for the City to enforce TDM program requirements.

Parking

Research has demonstrated that actively managing parking supply, such as through time limits and pricing, influences travel behavior and enhances the market for transit and other mobility options. Required minimum parking leads to underused parking lots with negative financial and environmental impacts. Excessive parking is also contrary to goals such as maximizing transit-oriented development opportunities and developing complete neighborhoods.

TR-29 Adopt and implement a Parking Plan in the Transportation Master Plan that supports the development of equitable, inclusive, sustainable, and resilient transit-oriented communities. Include communication in the implementation of the plan. Consider the needs of older adults, families with small children, and people with disabilities in the design of parking.

TR-30 Implement comprehensive parking management programs that at a minimum address underutilized parking, shared parking, transit access parking, wayfinding, and localized parking imbalances. Manage parking demand using strategies like time limits and pricing.

TR-31 Establish off-street parking requirements that prioritize space for people, housing, jobs, services, recreation, amenities, and environmental sustainability. Reduce or eliminate minimum required parking regulations near high-frequency transit, in centers, for middle housing, and near neighborhood-based businesses. Maintain a process and decision criteria to allow the granting of parking ratios above or below required ratios.

Environmental Sustainability

In 2017, the transportation sector accounted for 26% of the Redmond community's greenhouse gas emissions. This includes emissions from all vehicles when operating in Redmond. Transportation was the second-largest contributor to greenhouse gas emissions after commercial electricity (42%). Vehicles that burn fossil fuels contribute to air pollution by emitting particulates, carbon monoxide, and nitrogen oxides. Nitrogen dioxide reacts with oxygen to produce ozone. These emissions degrade the air and harm human health.

Oil, chemicals, and metals from vehicles pollute surface water. In 2021, 70% of Redmond's streets did not have basic water quality treatment and so pollutants flow into local waterways, harming fish and wildlife. In parts of Downtown and Southeast Redmond, under which an aquifer supplying about 40% of Redmond's drinking water lies, water from pollution-generating surfaces like streets cannot be infiltrated into the ground because doing so would pollute the groundwater. The more pollution-generating impervious surfaces exist above the aquifer, the less rainfall can be infiltrated into the aquifer. Pedestrian and bicycle paths that drain separate from roadways are considered clean and stormwater from these surfaces can be safely infiltrated.

FW-TR-4 Plan, design, build, operate, and maintain a transportation system that supports the City's sustainability principles.

TR-32 Implement transportation programs, projects, and services to achieve a 71 percent reduction in greenhouse gas emissions from the transportation sector from 2011 to 2050.

TR-33 Account for fleet electrification in the design of the transportation system to encourage a shift to more efficient and zero emission vehicles.

TR-34 Implement transportation programs, projects, and services to meet air quality standards established in state and federal clean air laws, including the Commute Trip Reduction Law (RCW 70.94.521), and requirements of Chapter 173-420 Washington Administrative Code (WAC): "Conformity of Transportation Activities to Air Quality Implementation Plans."

TR-35 Improve surface and groundwater quality by reducing stormwater runoff, minimizing impervious surface area from transportation facilities, providing water quality treatment for transportation facilities, and removing fish barriers.

Regional Transportation

A significant amount of travel that occurs in Redmond is regional in nature. Trips that are made through Redmond have their origin, destination, or both, outside city limits. Working with partners in the region, the City can significantly influence regional travel and the impacts of local travel within Redmond and between Redmond and neighboring communities.

FW-TR-5 Influence regional transportation decisions and leverage regional transportation investments in support of Redmond's transportation policy objectives.

TR-36 Work with state, regional, and local partners to advance an equitable and sustainable transportation system, including mutual priorities such as increasing transit access and service, improving system resiliency, implementing state highway corridor plans, connecting the region to national and world markets, and managing and mitigating cross-jurisdictional impacts of growth.

TR-37 Participate in regional forums like the Eastside Transportation Partnership, Sound Cities Association, and the Puget Sound Regional Council to implement transportation plans and policies that affect Redmond, the Eastside, and the region.

TR-38 Work with WSDOT and other stakeholders to ensure that SR 520 operates efficiently and that future improvements to SR 520:

- Support the operation of city arterials for all modes
- Ensure efficient bus and carpool operations with dedicated HOV lanes that conveniently connect with transit hubs
- Maximizes use of existing corridor through innovative treatments such as bus only shoulder lanes and variable speed zones; and
- Avoid new and reduce existing adverse impacts from noise, light, and motor vehicle pollution associated with such projects.

Concurrency and Level of Service

Transportation concurrency and level-of-service (LOS) standards are requirements of the Washington State Growth Management Act (GMA). The City is required to ensure that transportation programs, projects and services needed to serve growth are in place either when growth occurs or within six years. Regulations implementing concurrency and LOS standards are contained in the Redmond Zoning Code. The City's policies on transportation concurrency and level of

service seek to promote Redmond's land use and community character goals, expand travel choices, and ensure efficiency and accountability in managing the transportation system.

TR-39 Use a multimodal "Plan-Based" approach for Redmond's transportation concurrency management system that:

- Funds transportation programs, projects, and services in proportion to the needs of the city and the pace of growth; and
- Encourages development that can be supported by active transportation and transit.

TR-40 Adopt and implement a citywide multimodal level-of-service standard: If land use growth and development of the city's transportation system are proportionate, work in parallel, and are consistent with the Comprehensive Plan, all concurrency management requirements are considered met.

TR-41 Take one or more of the following actions if the City is unable to fund the programs, projects and services identified in the Transportation Facilities Plan portion of the Transportation Master Plan (not in priority order):

- Delay development until such time that programs, facilities or services can be funded;
- Amend the City's Comprehensive Plan to reduce the travel demand placed on the transportation system; or
- Obtain needed revenue or revise the Transportation Facilities Plan to reflect known financial resources.

As a last choice, change the transportation level of service standard.

Transportation Revenue

The Transportation Facilities Plan (TFP) is the part of the Transportation Master Plan (TMP) that describes the transportation investments that the City will make between 2022 and 2050 to support growth. The TFP financial program contains details of transportation revenue sources that the City can reasonably expect to receive during the life of the TFP. Revenue sources contained in the financial program vary widely in terms of the amounts available and the types of projects for which they may be used. In most cases, individual transportation projects are funded by a combination of funding sources, reflecting the fact that transportation projects have multiple purposes and serve multiple beneficiaries.

TR-42 Develop and maintain a detailed revenue forecast that funds the ongoing maintenance, operation, and delivery of the transportation system at an adequate level of service.

TR-43 Consider a broad spectrum of revenue sources, including but not limited to general fund contributions, impact fees, local improvement districts, transportation benefit districts, street maintenance utility, grants, right-of-way lease fees, developer and other contributions, business taxes, and debt financing.

TR-44 Ensure that new development contributes its fair share of the cost of transportation facilities, programs and services needed to mitigate growth-related transportation impacts.

Transportation Master Plan

The primary purpose of the transportation system is to support the City's goals, vision and policies and to shape the form of urban development in Redmond. To further that purpose, the Transportation Master Plan (TMP) is a functional plan that implements Transportation Element policies through programs, projects and services.

TR-45 Adopt, implement, and regularly update the Transportation Master Plan as the guide for implementing and funding all transportation programs, projects and services. Include all components required by the Growth Management Act that are not included in the Transportation Element.

TR-46 Include a long-range, funding-constrained Transportation Facilities Plan (TFP) in the TMP that identifies programs, projects, and services to be funded over the life of the TFP.

TR-47 Ensure that all transportation planning and investment decisions:

- Support the preferred land use pattern contained in the Land Use Element
- Advance equity and inclusion, sustainability, resiliency, and safety
- Advance the strategies of organizing around light rail, maintaining transportation infrastructure, improving travel choices and mobility, and enhancing freight and service mobility; and
- Leverage funding

TR-48 Establish and report on targets and performance measures to assess progress toward transportation policy objectives, including:

- Traffic safety
- Mode split,
- Infrastructure condition
- Proactive maintenance and operations,
- Carbon emissions,
- TFP project and program delivery,
- Concurrency, and
- Other specific targets and measures identified in the Transportation Master Plan.

Table of Contents for Appendices

Appendix A: Inventory of Transportation Facilities and Services

Appendix B: Multimodal Level-of-Service Standards

Appendix C: Estimated Multimodal Level-of-Service Impacts to State-Owned Facilities

Appendix D: Multimodal Travel Demand Forecast

Appendix E: Impacts to Neighboring Jurisdictions

Appendix F: Demand Management Strategies

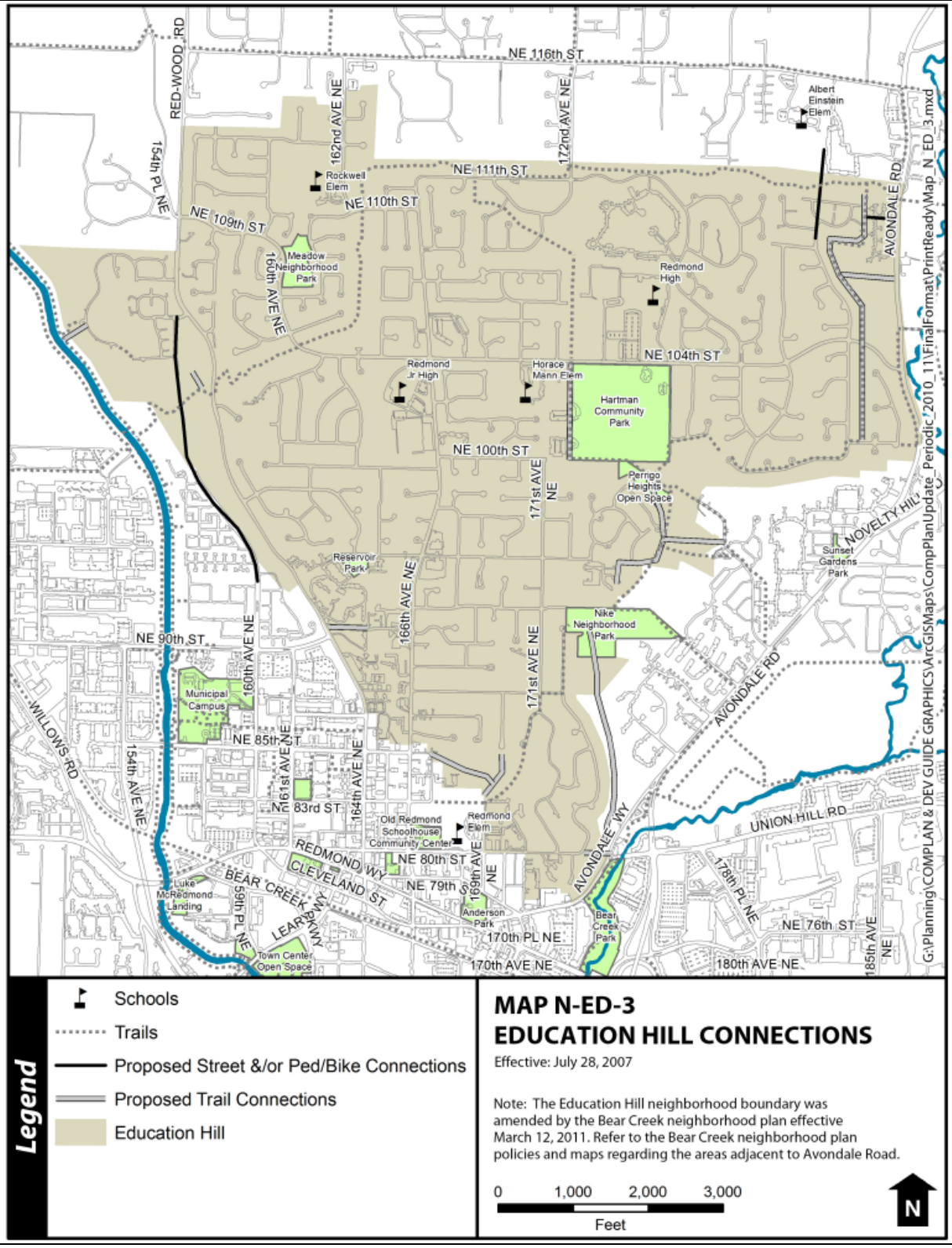
Appendix G: Transportation Facilities Plan with Financing Plan (System Needs)

Appendix H: Active Transportation Networks

Transportation Policies in Neighborhoods Element

Only policies where a change is proposed (revision, addition, deletion) are shown.

#	Text
Neighborhoods	
Bear Creek	
N-BC-31 (delete)	~~Complete the bike facilities along Avondale Road and Avondale Way. Connect these facilities to the local and regional trail networks.~~
N-BC-34 (delete)	~~Evaluate strategies in future Avondale corridor planning efforts that would:~~ ~~• Improve safety for students walking and riding the bus to school,~~ ~~• Work to improve traffic flow by partnering with the school district and other transit agencies to evaluate and encourage alternatives to in-lane stops, and,~~ ~~• Manage speeds to posted limits.~~
Education Hill	
N-EH Table 1: Street, Trail and Sidewalk Connections (revise)	~~Streets:~~
	~~1. Extension of 160th Avenue NE to connect with Redmond-Woodinville Road at approximately NE 106th Street~~
	Trail Connections (In addition to those already shown on ~~PRO~~ PARCC Plan):
	~~1. Avondale Estates/Tyler's Creek: trail connection north to Redmond/Puget Sound Energy Trail~~
	2. East Valley Heights/Valley View Trail: maintain existing and construct "missing link" and provide safe pedestrian crossing of NE 104th Street at 183rd Avenue NE to enhance trail connection to south
	3. Provide west/east access from Valley View Trail to Avondale Road NE (approximately NE 108th Street)
	~~4. Perrigo Heights, north/south link, to encourage ultimate connection to north side of Nike Park~~
	~~5. Trail from Rainsong Condominiums (PRD) down slope to Redmond-Woodinville Road, provide connection to Downtown and Bella Bottega at NE 90th Street~~
	~~6. Shaughnessy Heights trail connections:~~ ~~a. East/west from NE 85th Street, down through western ravine~~ ~~b. North to 169th Place NE~~
	~~7. Hartman Park Connection to NE 100th Street to west and south~~
	~~8. Extension of NE 80th Street east down slope to Avondale Road NE~~
	~~9. Redmond/Puget Sound Energy Trail Enhancements at SR 202, NE 104th Street, NE 110th Street and 172nd Avenue NE~~
	~~10. Redmond 74/Mondavio: trail linkages from project to Redmond/Puget Sound Energy Trail~~
	11. Trail from Nike Park south along ridge line (east of 172nd Avenue NE) to NE 80th Street
	Sidewalk Connections:
	1. South Education Hill: a. NE 89th Street: 166th to 168th Avenue NE b. NE 88th Street: 166th to 172nd Avenue NE c. NE 87th Street: 166th to 169th Court NE d. 172nd Avenue NE: NE 88th Street to Nike Park ~~e. 172nd Avenue NE: NE 100th to NE 104th Street~~

	~~2. Redmond-Woodinville Road: completed connections from NE 90th Street, north to city limits~~
	Safe Crossing Improvements:
	~~1. Provide safe crossing improvements to NE 111th Street when warranted~~
Map N-EH-3 (revise to be consistent with Table N-EH-1)	

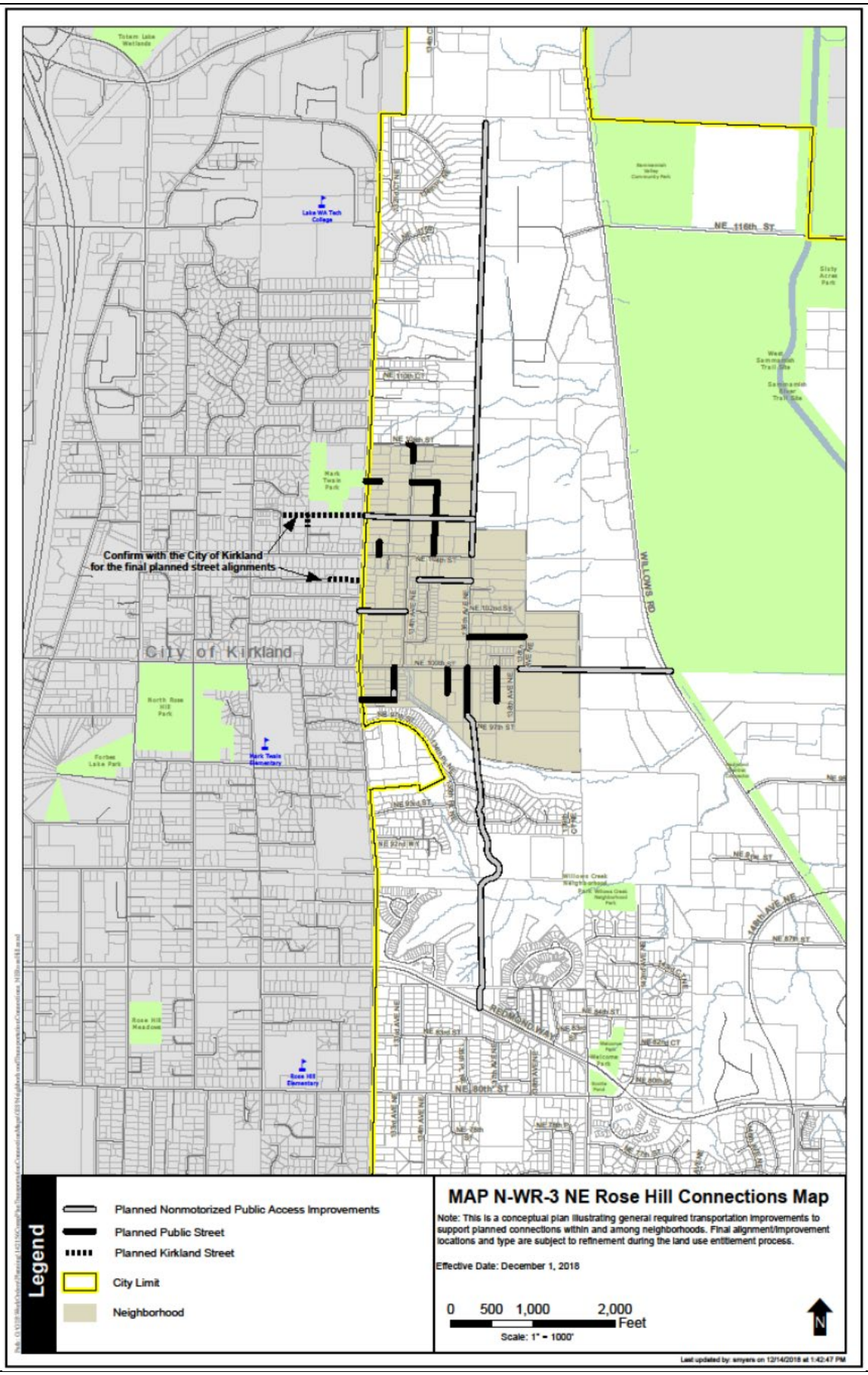
N-EH-28 (delete)	~~Encourage transit service providers to consider alternative choices of vehicles for service within and connecting to the Education Hill Neighborhood to facilitate more direct and frequent transit service to Downtown and other major employment centers.~~
N-EH-29 (delete)	~~Minimize the use of cul-de-sac streets to further encourage a more gridlike pattern of streets and promote connectivity in the Education Hill Neighborhood.~~
N-EH-30 (delete)	~~Support improvements as defined in the Transportation Master Plan to Redmond-Woodinville Road, Avondale Road NE, Willows Road and SR 520; also support the extension of 160th Avenue NE to Redmond-Woodinville Road at approximately NE 106th Street, in order to enhance the variety of transportation corridors available for navigating around the perimeter of Redmond's northern neighborhoods.~~
N-EH-33 (delete)	~~Support the conversion of 166th Avenue NE from NE 85th Street to NE 104th Street from a four to three-lane configuration contingent upon solutions provided for vehicular conflicts near the intersection of 166th Avenue NE and NE 104th Street, including the installation of a traffic signal at that intersection.~~
N-EH-35 (delete)	~~Improve street lighting in the Education Hill Neighborhood to help avoid pedestrian and vehicular conflicts and to improve pedestrian safety, while minimizing disturbances to nearby residences.~~
N-EH-36 (delete)	~~Develop street standards for new or redeveloped local streets within the Education Hill Neighborhood that allow for a narrow street width, yet meet required standards for safety, mobility and emergency access.~~
N-EH-39 (delete)	~~Provide limited access on the west side of Avondale Road NE in the area north of NE 104th Street and approximately south of NE 108th Street, if extended.~~
N-EH Table 2 (revise)	Table 2: Education Hill Neighborhood Highest-Priority Pedestrian Mobility and Safety Improvements Improve Pedestrian Safety and Mobility The goals of the improvements below are to improve safety for pedestrians by providing sidewalks and walkways that are separated from motorized traffic when possible and to promote opportunities to walk to schools, parks, trails, transit stops and other destinations within or near the neighborhood. ~~• Address visibility issues and crossing opportunities along 166th Avenue NE, including the intersections with NE 104th Street and NE 95th Street.~~ ~~• Consider an enhanced connection between Redmond High School and Hartman Park with consideration of a pedestrian overpass or tunnel design.~~ • Complete sidewalks in the neighborhood based on citywide criteria at locations described in the previous connections table (Table 1). • Work in partnership with transit authorities, City staff and <u>community members</u> ~~the Neighborhood Citizens Committee~~ to address transit ridership issues that include: o Placement of shelters at bus stops; o Increased choices, efficiency and frequency of routes within and connecting to the neighborhood; o Student access to and from school and school-related activities; and o Coordination with housing policies to optimize the alignment of transit services. ~~• Provide improvements to the intersection at 166th Avenue NE and NE 104th Street, including street lights for safety and a traffic signal that gives higher priority to pedestrian flow over vehicular flow. Design the improvements to promote interactivity within the neighborhood, to be pedestrian-oriented and to provide character and identity to the Education Hill Neighborhood.~~

	~~Consider a "scramble phase" option for the intersection of 166th Avenue NE and NE 104th Street through which traffic stops in all directions, while providing pedestrians and bicyclists ample time for street crossings during high-pedestrian-volume periods.~~ Analyze the effectiveness and design alternatives for a roundabout or signalization at the intersection of 166th Avenue NE and NE 95th Street. Work with community members ~~the Neighborhood Citizens Advisory Committee~~ to consider additional and alternative forms of pedestrian access along the southern slopes of the neighborhood as they meet the edges of the Downtown Neighborhood.
Grass Lawn	
N-GL-18 (delete)	~~Improve street lighting on local streets in the Grass Lawn Neighborhood to help avoid pedestrian and vehicular conflicts and improve pedestrian safety, while minimizing disturbances to nearby residential homes.~~
N-GL Table 1 (delete)	~~Table 1: Grass Lawn Neighborhood Highest-Priority Pedestrian Mobility and Safety Improvements~~ ~~Improve Pedestrian Safety and Mobility~~ ~~The goals of the improvements below are to improve safety for pedestrians by providing sidewalks and walkways that are separated from motorized traffic when possible and to promote opportunities to walk to schools, parks, trails, transit stops and other destinations within or near the neighborhood.~~ ~~• Establish safe pedestrian crossings of Redmond Way and 148th Avenue NE, particularly in sections where there are long distances between existing and planned signalized intersections.~~ ~~• Complete street lighting on Redmond Way for pedestrians.~~ ~~• Complete sidewalks in the neighborhood based on citywide criteria and the following neighborhood priorities: (1) Redmond Way; (2) 139th Place NE between NE 75th and NE 78th Place; (3) NE 73rd Place between NE 70th Place; (4) NE 75th Street; (5) 151st Avenue NE; and (6) 135th Avenue NE between NE 75th Street and NE 80th Street, and other missing sidewalk segments throughout the neighborhood.~~ ~~• Install bus shelters at neighborhood bus stops.~~ ~~• Consider providing sidewalks along one or both sides of Redmond Way that are separated from traffic, for example by a planting strip, to improve safety for pedestrians and support transit use.~~ ~~• Support efforts between the City of Redmond and the City of Kirkland to provide sidewalks on both sides of 132nd Avenue NE south of Old Redmond Road. Sidewalks should be separated from traffic by a planting strip.~~
Idylwood	
N-ID Table 1 (delete)	~~Table 1: Idylwood Neighborhood Highest-Priority Pedestrian and Bicycle Mobility and Safety Improvements~~
~~Priority Pedestrian Projects~~	~~Install a mid-block crosswalk with appropriate safety features on West Lake Sammamish at an appropriate location between 180th Avenue NE and NE 27th Street to increase opportunities for crossing where distances are greate than the City's standard distance between legal crossings.~~
	~~Use interim measures along West Lake Sammamish Parkway to increase pedestrian and bicycle access and promote safety until complete street improvements are implemented.~~
	~~Install sidewalks and other pedestrian improvements that help establish and maintain a pedestrian-supportive environment along West Lake Sammamish Parkway where right-of-way is available.~~

		~~Recognize Idylwood Beach Park as a regional facility with higher pedestrian volumes on a seasonal basis, particularly related to the off-site parking facility. Consider additional features at the related Idylwood Beach Park crosswalk that improve pedestrian visibility and motorists' attention.~~
		~~Identify and plan intersection improvements to promote pedestrian mobility and safety at:~~ ~~• NE 40th Street and 172nd Avenue NE~~ ~~• West Lake Sammamish Parkway, NE 36th Street and 177th Avenue NE~~ ~~• West Lake Sammamish Parkway and 180th Avenue NE~~ ~~• West Lake Sammamish Parkway and NE 24th Street with particular attention to improving sight distances~~
	~~Priority Bicycle Projects~~	~~Promote bicycle etiquette. Offer bicycle education and safety awareness programs to school-aged children. Consider partnership with Audubon Elementary School.~~
North Redmond		
N-NR-56 (delete)	~~Ensure that as new development occurs on a property or configuration of adjacent properties, the developer plans, designs and implements linkages, as shown on the North Redmond Neighborhood Circulation Plan and the North Redmond Supplemental Connections Map, in order to promote connections to schools, recreation and other developments. Accommodate a variety of motorized and nonmotorized traffic in the neighborhood. Allow for flexibility in the general location and alignment of the connections, while utilizing mitigation techniques to accommodate increased traffic, reduce impacts to corridor residents, and provide enhanced safety measures.~~	
N-NR-58 (revise)	Ensure the implementation of traffic-calming features along 172nd Avenue NE, north of NE ~~116th~~ 122nd Street to NE 124th/128th Street, including but not limited to landscaped buffers and medians.	
N-NR-60 (delete)	~~Ensure the incorporation of traffic mitigation techniques at the intersection of 172nd Avenue NE and NE 116th Street, which is the intersection of two multimodal corridors, and include in the analysis opportunities for:~~ ~~• Efficient traffic flow;~~ ~~• Pedestrian and bicycle travel; and~~ ~~• Safety for pedestrians, bicyclists and motorists.~~	
N-NR-61 (delete)	~~Study, identify and install features to promote a minimum of three safe crossings at appropriate intervals along NE 116th Street within the segments from Redmond-Woodinville Road to Avondale Road NE.~~	
N-NR-62 (delete)	~~Require that bike lanes are also delineated if centerlines are added to existing streets.~~	
N-NR-63 (delete)	~~Require that any new private streets are designed, built and maintained for pedestrian safety and accessibility as defined in the Transportation Master Plan, in addition to utilizing lowimpact and environmentally sensitive techniques as appropriate.~~	
N-NR-64 (delete)	~~Encourage the design and construction of all new local streets at the minimum allowable width in order to preserve the area's character; protect critical areas and reduce stormwater runoff, while also providing for safe pedestrian and bicycle activity, provided that there is a minimum of two vehicle access points serving the development, with the exception of the Wedge subarea.~~	
N-NR-67 (delete)	~~Allow narrow Street Edge Alternative (SEA), low-impact development, and woonerf design and construction standards on local streets. Ensure that the designs:~~ ~~• Do not result in a reduction of class or service as defined by the existing City street standards;~~	

	~~• Provide access to residential areas while reducing environmental and economic impacts; and~~ ~~• Do not increase congestion, hazards or difficulty in serving the area.~~
N-NR-69 (delete)	~~Utilize traffic-calming techniques to slow traffic through residential neighborhoods, including on arterials and collectors.~~
Southeast Redmond	
N-SE-68 (delete)	~~Explore and implement creative ways to reduce conflicts between vehicles and nonmotorized street users.~~
N-SE-70 (delete)	~~Manage congestion by, for example, using technology and making efficient use of existing infrastructure, so that the travel network overall continues to function.~~
N-SE-71 (delete)	~~Ensure that arterials provide convenient and safe pedestrian crossing opportunities.~~
N-SE-72 (delete)	~~Support long-term improvements to mitigate congestion at the end of SR 520, including at the interchange with Redmond Way and the intersection at Union Hill Road.~~
N-SE-74 (delete)	~~Work with Sound Transit and others to encourage regional commuters to use the planned Southeast Redmond Park and Ride to access transit.~~
N-SE-75 (delete)	~~Partner with Sound Transit and King County Metro to ensure high-quality multimodal access to the station area, especially considering commuters who will need access to the regional street network.~~
N-SE-76 (delete)	~~Promote through, general vehicular, and truck travel on principal and other high-capacity arterials, which have higher vehicular volume and speed.~~
Willows-Rose Hill	
N-WR-H-10 (delete)	~~New residential developments in the NE Rose Hill Subarea shall facilitate pedestrian and vehicle connections by providing convenient walkways and by designing new and improved streets to enhance the existing street grid as shown in Map N-WR-3. NE 100th Street shall not be extended through to Willows Road due to the presence of high Landslide Hazard Areas within this corridor.~~
N-WR-H-11 and preamble (delete)	~~Residents of NE Rose Hill have indicated through public meetings and surveys that they prefer a more rural street standard that includes narrow streets, landscaped drainage swales and walkways. Included among the reasons for this preference are desires to better integrate new development with the existing development character, to reduce the amount of impervious surface and stormwater runoff, and to achieve a more rustic and less finished look. Residents are also seeking improved pedestrian safety through slower traffic speeds and adequate separation between walkways and motorized traffic. The design and improvement of such streets are described in the following policies.~~ ~~New and improved streets in the NE Rose Hill Subarea shall be built per the standards contained in RZC Appendix 2: Construction Specifications & Design Standards for Streets and Access. These streets shall be characterized by the following features:~~ ~~• Narrow street widths designed to serve local access needs and to reduce the amount of impervious surface.~~ ~~• Pedestrian walkways.~~ ~~• Landscaped drainage swales designed at a minimum to convey stormwater and to provide a natural-looking and informal landscaped edge that separates walkways from vehicle lanes. Subdivisions should include, and short subdivisions are encouraged to include, drainage swales landscaped to enhance stormwater quality and control.~~

Map N-WR-3
(delete)



N-WR-H-3 (delete)	~~New developments along Willows Road, Redmond Way and 132nd Avenue NE should share existing accesses. Shared access may include use of existing driveways and access corridors or the construction of new private streets to link properties. Internal vehicular access to adjacent properties should also be provided.~~
N-WR-H-5 (delete)	~~Sidewalks and walkways in the Willows/Rose Hill Neighborhood shall be designed to include a planting strip or other appropriate buffering between motorized and nonmotorized uses to improve safety for pedestrians.~~
N-WR-H-6 (delete)	~~The City shall pursue improved street lighting in the Willows/Rose Hill Neighborhood to help avoid pedestrian and vehicular conflicts, while minimizing light trespass into the night sky.~~
N-WR-H-7 (delete)	~~Pedestrian-scale lighting should be provided on public streets in new short plats and subdivisions in the Willows/Rose Hill Neighborhood.~~
N-WR-H-8 (delete)	~~The Cities of Redmond and Kirkland should systematically work together, with the involvement of area residents and property owners, to plan for and implement improvements for transportation facilities that affect both cities. This work should include establishing milestones and reviewing progress towards meeting them.~~
N-WR-H-9 (delete)	~~Table H-1 identifies the Willows/Rose Hill Neighborhood's highest priorities for pedestrian safety and traffic management improvements. The City and the Willows/Rose Hill Neighborhood should work cooperatively to implement priority improvements through City grant programs and coordination with transportation staff. The City and a representative neighborhood group shall periodically review progress and update this list of neighborhood proposed needs and solutions with the involvement of the Willows/Rose Hill Neighborhood.~~
N-WR-H Table H-1 (delete)	~~Table H-1: Willows/Rose Hill Neighborhood Highest-Priority Pedestrian Safety and Traffic Management Improvements~~ ~~Improve Pedestrian Safety~~ ~~The goals of the improvements below are to improve safety for pedestrians by providing sidewalks and walkways that are separated from motorized traffic and to promote opportunities to walk to schools, parks, trails, transit stops, workplaces and other destinations within or near the neighborhood.~~ • ~~Improve 132nd Avenue NE to enable pedestrians and bicyclists to safely cross the street to access destinations, such as Lake Washington Technical College and Mark Twain School and Park. Support the City of Kirkland's plan to add a traffic signal at NE 100th Street. Additional locations recommended for improved crossings are the vicinity of NE 95th Street, NE 104th Street and NE 114th Street. Among suggested improvements are lighted crosswalks, crossing flags and improved signage.~~ • ~~Improve Willows Road to enable pedestrians and bicyclists to safely cross the street at several locations to gain safer access to businesses, transit stops, and existing and planned trails. Among the potential improvements are crosswalks with pedestrian-actuated signal or grade-separated crossings.~~ • ~~As part of new and improved streets in NE Rose Hill, include walkways that are separated from traffic to improve safety for pedestrians.~~ • ~~Along both sides of Redmond Way provide sidewalks that are separated from traffic, for example by a planting strip, to improve safety for pedestrians and support transit use.~~ • ~~Support the City of Kirkland's plan for 132nd Avenue NE to provide sidewalks along the east side of the street that are separated from traffic by a planting strip.~~ ~~Traffic Calming and Management~~

	~~The goals of the improvements below are to promote driving at safe speeds in the neighborhood, to reduce the opportunities for traffic accidents, and to maintain reasonable access for residents turning onto and off of arterials by managing the traffic flow.~~ • ~~Improve the intersection of 142nd Avenue and Redmond Way to address issues of limited visibility and access for vehicles turning left onto Redmond Way.~~ • ~~Manage the speed and flow of traffic along 132nd Avenue NE to maintain reasonable access for residents turning onto and off of this street and to improve safety. Among the recommended improvements are:~~ 1. ~~Install a traffic signal at NE 100th Street and other locations as warranted to provide more breaks in north-south traffic and to enable access onto or off of this street from nearby residences.~~ 2. ~~Periodically use a speed monitoring display board to remind drivers of speed limits. Particular areas of concern include the portions of 132nd Avenue NE between Redmond Way and Mark Twain Park and near Lake Washington Technical College.~~ 3. ~~Make other improvements to manage traffic flow and improve the visual quality of the street, such as turn lanes, landscaped medians and additional street trees.~~ • ~~Improve the safety of traffic speeds along Willows Road, particularly during non-peak hours. Recommendations include:~~ 1. ~~Make the speed limits in the north and south portions of the street consistent at 35 mph.~~ 2. ~~Use speed monitoring display boards and enforcement to deter drivers from exceeding speed limits.~~

Appendix A

Inventory of Transportation Facilities and Services

Redmond Partnerships

As noted in the State and Regional Planning section of this report, Redmond partners with WSDOT, King County Metro Transit, and Sound Transit in operating facilities and services that make it possible to travel in and around Redmond. The City also partners with neighboring jurisdictions to coordinate

Inventory of Existing Conditions

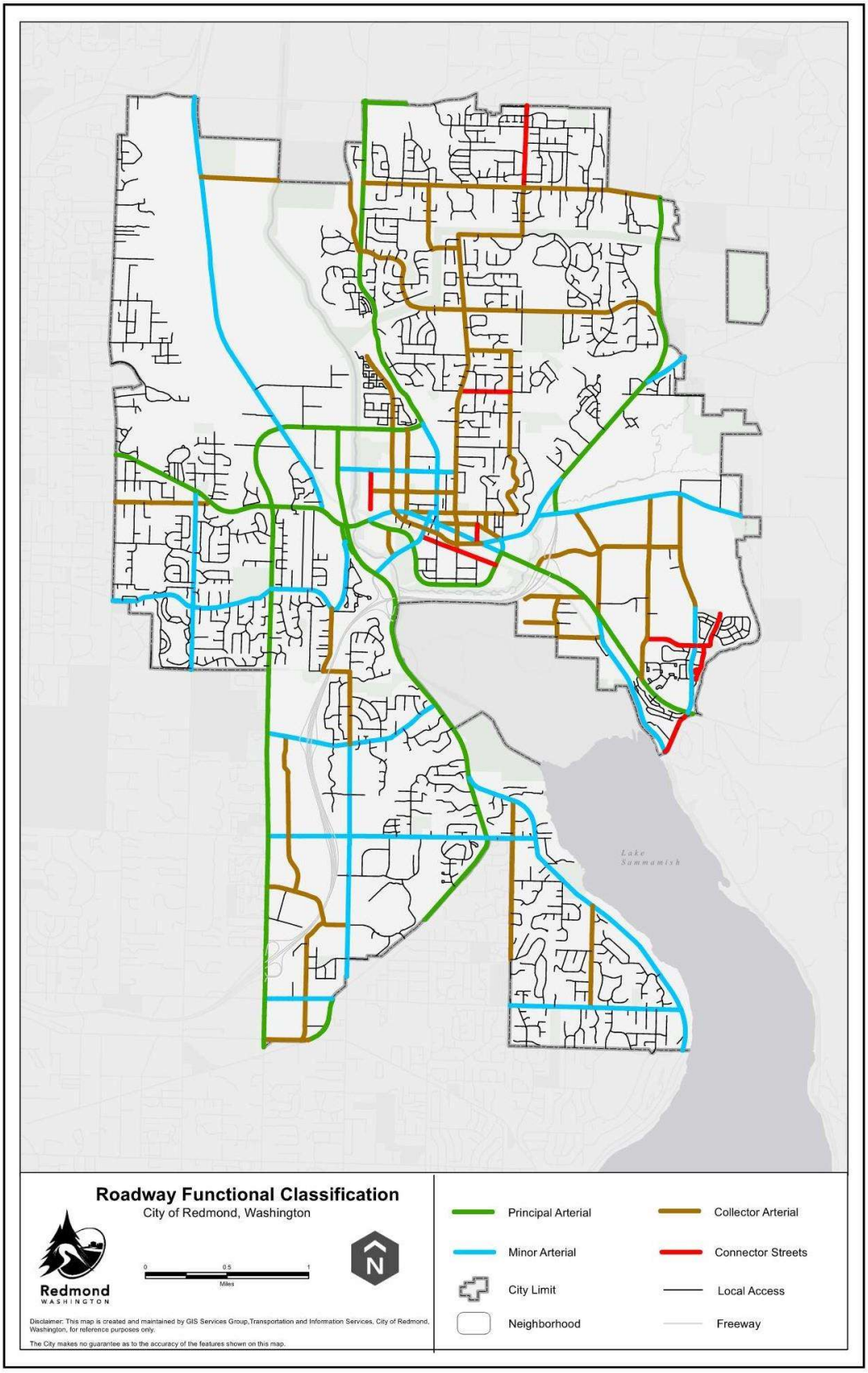
Street System

Redmond's street system comprises 197 centerline miles of streets ranging from the SR 520 freeway that supports regional mobility to local streets that provide property access. Table 4-1 summarizes Redmond's street system. Figure 4-1 shows a map of Redmond's street system.

TABLE 4-1 REDMOND STREET SYSTEM

Functional Class	Centerline Miles
Principal Arterial	17.7
Minor Arterial	20.5
Collector Arterial	23.7
Connector	2.8
Local Access	123.9
Freeway	8.0

Figure 4-1 Redmond Street System Map



Along the 197 centerline miles of roadway there are 36 structures, such as culverts and weirs, that partially or completely block fish passage in Redmond streams. State regulations generally require that any capital projects that "touch" a fish barrier, like a road widening, must bring the stream crossing up to standard. While the City has not conducted cost estimates for each crossing, based on the general characteristics of the crossings and actual costs from past projects, the total cost is believed to be in the range of several tens of millions of dollars.

Transit System

King County Metro Transit and Sound Transit operate public transit service in Redmond. Table 4-2 summarizes current transit service in Redmond. Figure 4-2 shows a map of transit service in Redmond.

TABLE 4-2 TRANSIT SERVICE IN REDMOND

Route[1]	Service Area	Type[2]	September 2023 Status[3]
B	Redmond TC-Bellevue TC	RapidRide	Full
216	Redmond-Sammamish-Issaquah-Bellevue-Mercer Island-Seattle	Peak Hour	Suspended
221	Ed Hill-Bellevue College	All-day	Full
224	Duvall-Novelty Hill-Redmond TC	DART[4] all-day	Full
225	Kenmore-Overlake/RTS	All-day	Reduced
226	Bellevue TC-Overlake-Eastgate	All-day	Full
229	Overlake-Bellevue-Seattle	Peak Hour	Suspended
230	Redmond-Overlake-Bellevue-Kirkland	All Day	Full
232	Duvall-Redmond TC-Bellevue TC	Peak-hour	Suspended
233	Redmond-Overlake-Bellevue	All Day	Suspended
242	Seattle-Overlake	Peak hour	Suspended
244	Kenmore-Kingsgate-Overlake	Peak Hour	Suspended
245	Kirkland TC-Overlake-Eastgate	Frequent all-day	Full
247	Overlake-Bellevue-Renton-Kent	Peak Hour	Suspended
248	Redmond-Kirkland	All Day	Suspended
249	Idylwood-Overlake-Bellevue	All-day	Full
250	Avondale-Kirkland-Bellevue TC	Frequent all-day	Full
268	SE Redmond-Downtown Seattle	Peak-hour	Suspended
269	Issaquah-SE Redmond-Overlake	All-day	Full
291	Redmond-Kingsgate	Peak hour	Suspended
441	Edmonds-Lynnwood-Redmond-Overlake	Peak Hour	Suspended
ST 541	Overlake-U District	Peak-hour	Suspended

Route[1]	Service Area	Type[2]	September 2023 Status[3]
ST 542	Redmond TC-Green Lake	All-day	Full
ST 544	Overlake-S Lk Union	Peak-hour	Suspended
ST 545	SE Redmond-Downtown Seattle	Frequent all-day	Full
564	Puyallup-Federal Way-Kent-Renton-Bellevue-Overlake	Sound Transit Frequent all-day	Suspended
565	Federal Way-Kent-Renton-Bellevue-Overlake	Sound Transit Frequent All Day	Suspended
929	Redmond-Duvall-Carnation-Fall City	All Day	Suspended
930	Totem Lake-Redmond TC	DART all-day	Full
931	UW Bothell-Woodinville-Redmond	All-day	Suspended
982	Redmond-Seattle	Peak Hour	Peak Hour

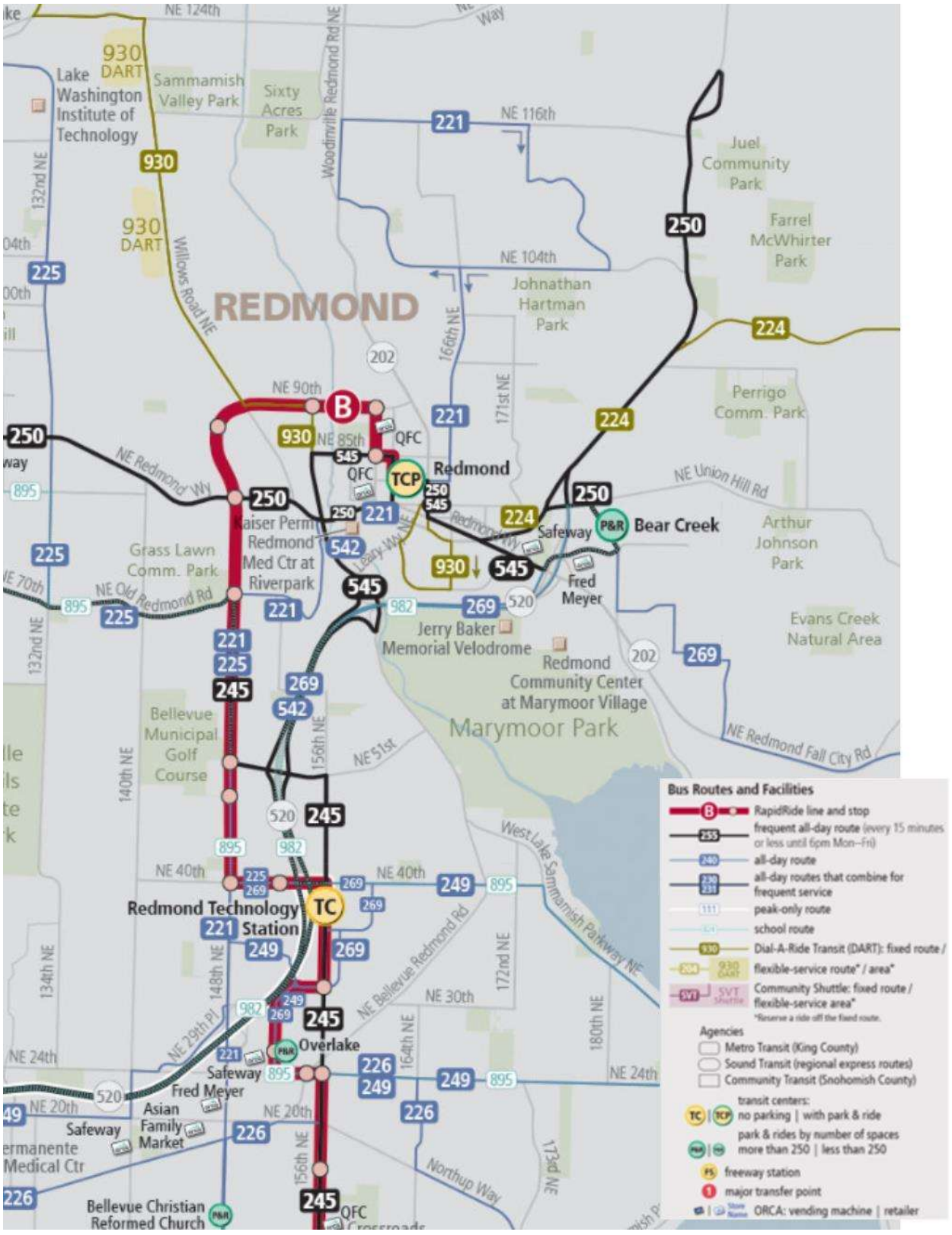
[1]"ST" means "Sound Transit"

[2] "Frequent" means 15-minute service frequency

[3] Sound Transit and King County Metro have temporarily reduced or suspended service on some routes due to the COVID-19 pandemic. "Full" means that the transit agency is operating all or almost all service in place prior to the COVID-19 pandemic. Although service reductions are expected to be temporary, the reduced service levels accurately represent existing conditions and so are reported here.

[4] DART is fixed-route transit service operated in King County under contract with Hopelink, using smaller transit vehicles with the flexibility to perform a limited number of off-route deviations upon request.

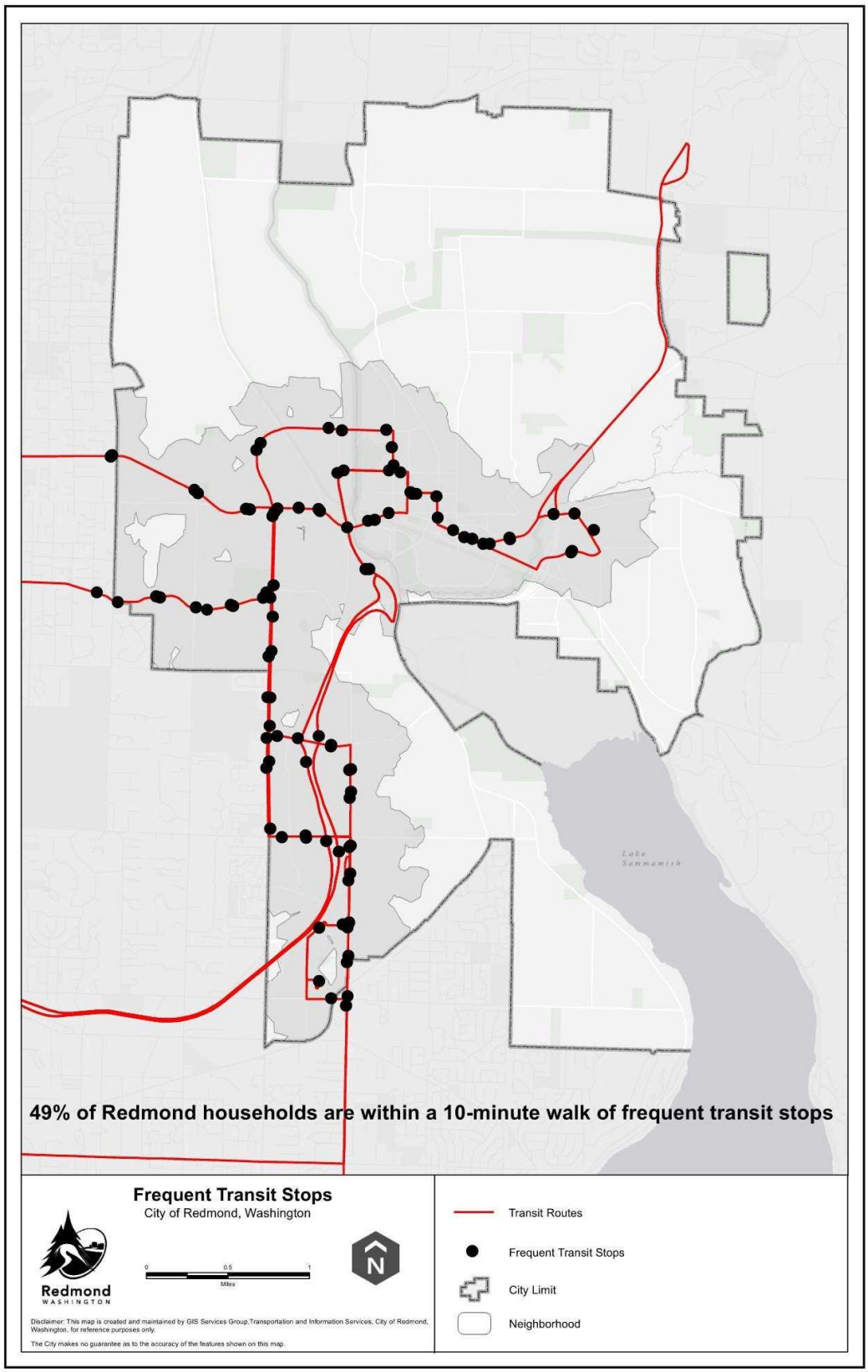
FIGURE 4-2 REDMOND AREA TRANSIT



Route 931 serving NE 124th St. and Red-Wood Road was suspended due to COVID-19 and shown on the map.

The current transit system puts about 49 percent of Redmond households within a 10-minute walk of frequent transit. These areas are mainly in Downtown and Overlake, with portions of Grass Lawn, Education Hill, and Southeast Redmond also encompassed. The number of households with good access to frequent transit can be increased by investing in transit, providing more housing options near frequent transit, or both. Figure 4-3 shows the areas in Redmond within a 10-minute walk of frequent transit.

FIGURE 4-3 HOUSEHOLDS NEAR FREQUENT TRANSIT



X

Metro and Sound Transit also operate park-and-ride lots in Redmond, summarized in Table 4-3 below.

TABLE 4-3 REDMOND PARK-AND-RIDES

Park-and-Ride	Location	Owner	Parking Stalls
Bear Creek P&R	7760 178th Pl. NE	King County Metro	283
Overlake Village P&R	2650 152nd Ave. NE	King County Metro	203
Redmond P&R	16201 NE 83rd St.	King County Metro	377
Redmond Technology Station	15590 NE 36th St.	Sound Transit	*
Southeast Redmond Station	176th Ave. NE & NE 70th St.	Sound Transit	*

* Redmond Technology Station (320 stalls) and Southeast Redmond Station (1,400 stalls) will open with light rail service in 2024-25

Electronic fare is paid with an ORCA card. A list of places where ORCA cards can be obtained is provided at https://orcacard.com/ERG-Seattle/getACard.do.

Pedestrian System

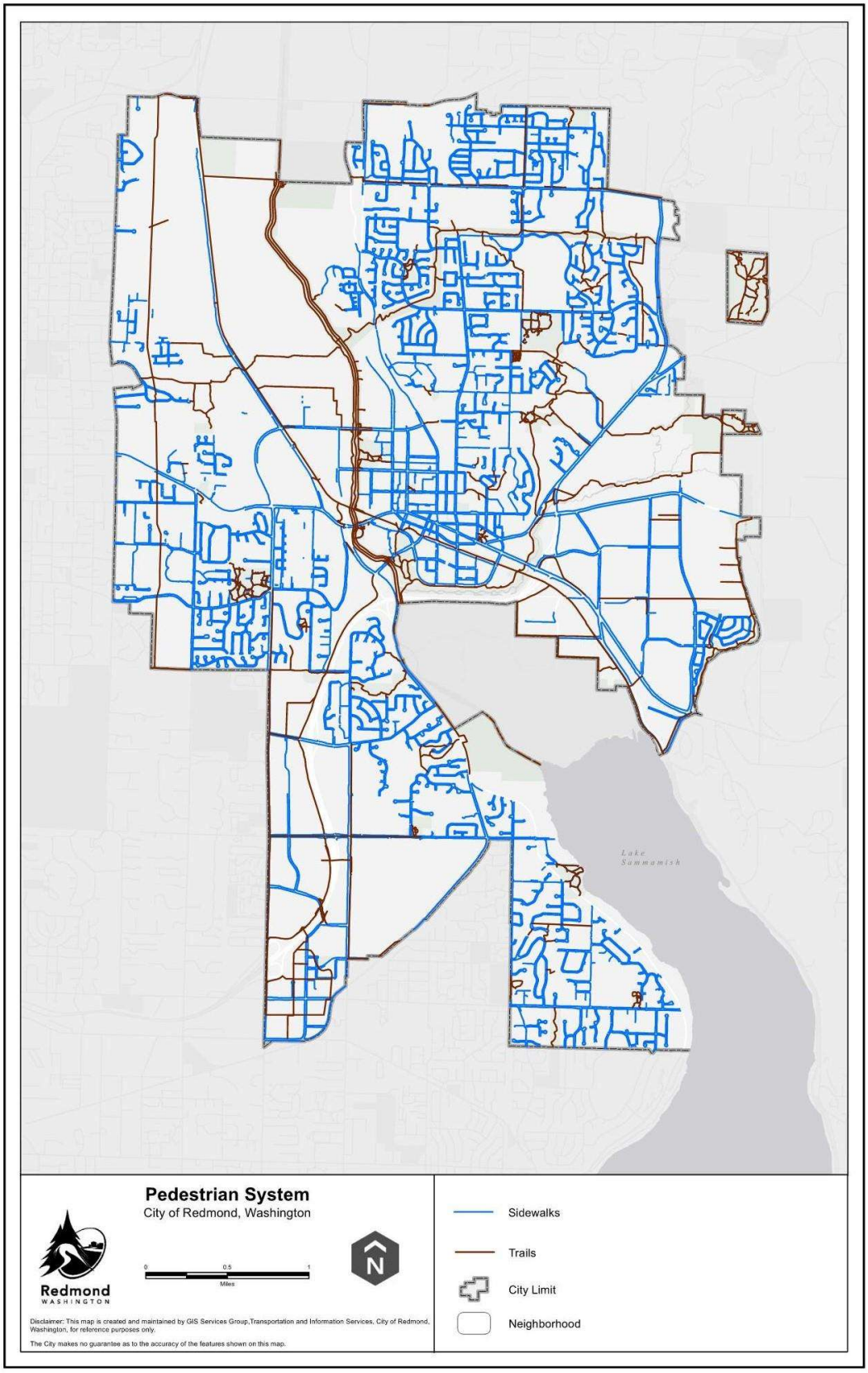
Redmond's pedestrian system comprises 249 miles of sidewalks and paved trails. Table 4-4 summarizes Redmond's pedestrian system by facility type. Figure 4-5 shows a map of Redmond's pedestrian system.

TABLE 4-4 REDMOND PEDESTRIAN SYSTEM

Facility Type*	Miles
Sidewalk	226.2
Trail – Paved (City)	15.2
Trail – Paved (County)	5.0
Trail – Paved (State)	3.0

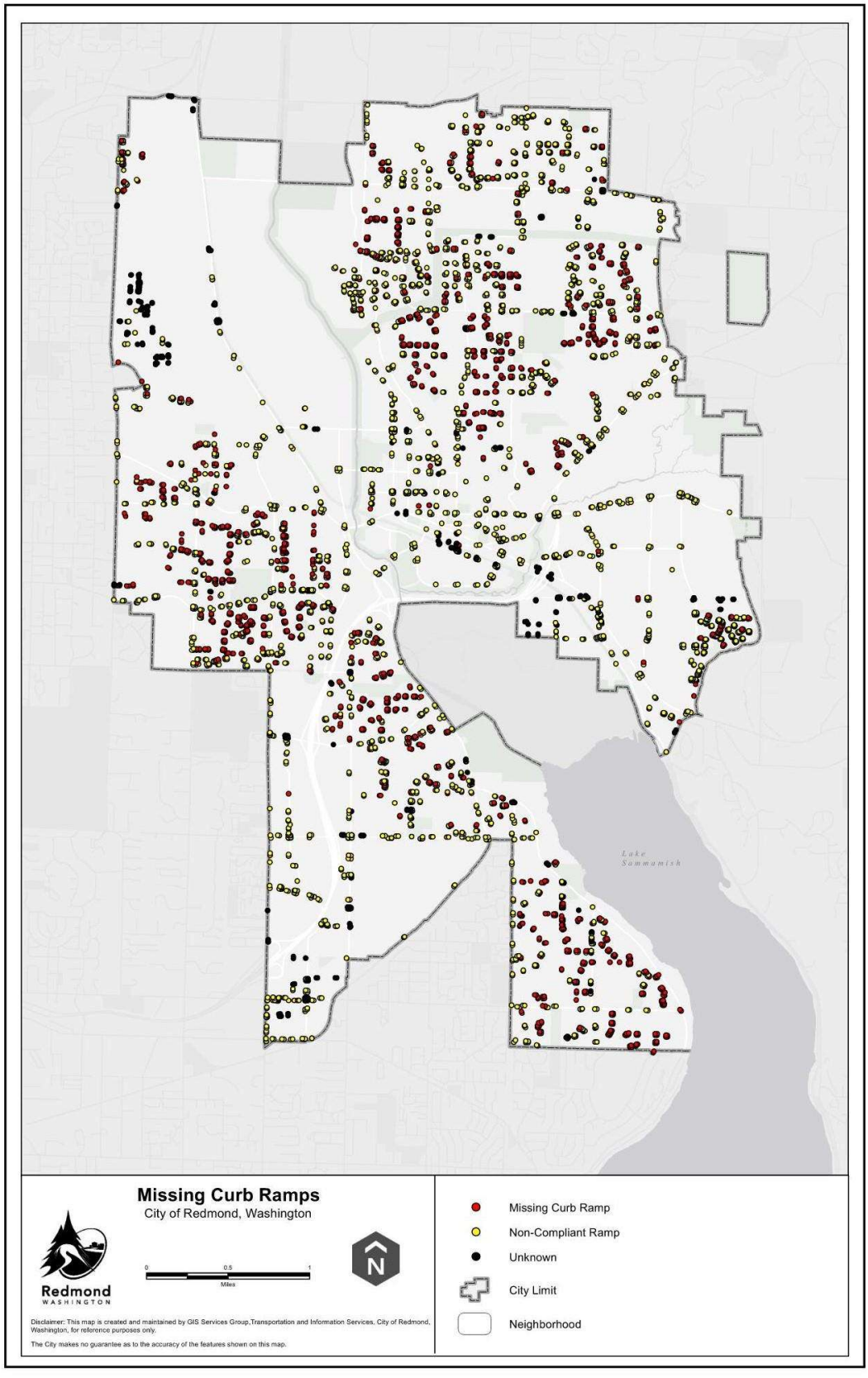
* There are 23.7 miles of public and private soft-surface trails in Redmond. These do not comply with transportation ADA requirements and so are not technically a part of the transportation system.

FIGURE 4-4 REDMOND PEDESTRIAN SYSTEM MAP



Curb ramps are a critical element of the pedestrian system, making the system accessible to more people, for example those using wheelchairs or pushing strollers. Redmond upgrades sidewalk curb ramps to be compliant with the Americans with Disabilities Act (ADA). Redmond owns about 5,000 ramps. While ramps were generally ADA compliant when constructed, approximately 80 percent are not compliant with current ADA standards, including locations where there should be a ramp but there is not a ramp. Figure 4-5 shows the locations of curb ramps that either do not meet current standards or are missing according to current standards.

FIGURE 4-5 REDMOND CURB RAMPS



Bicycle System

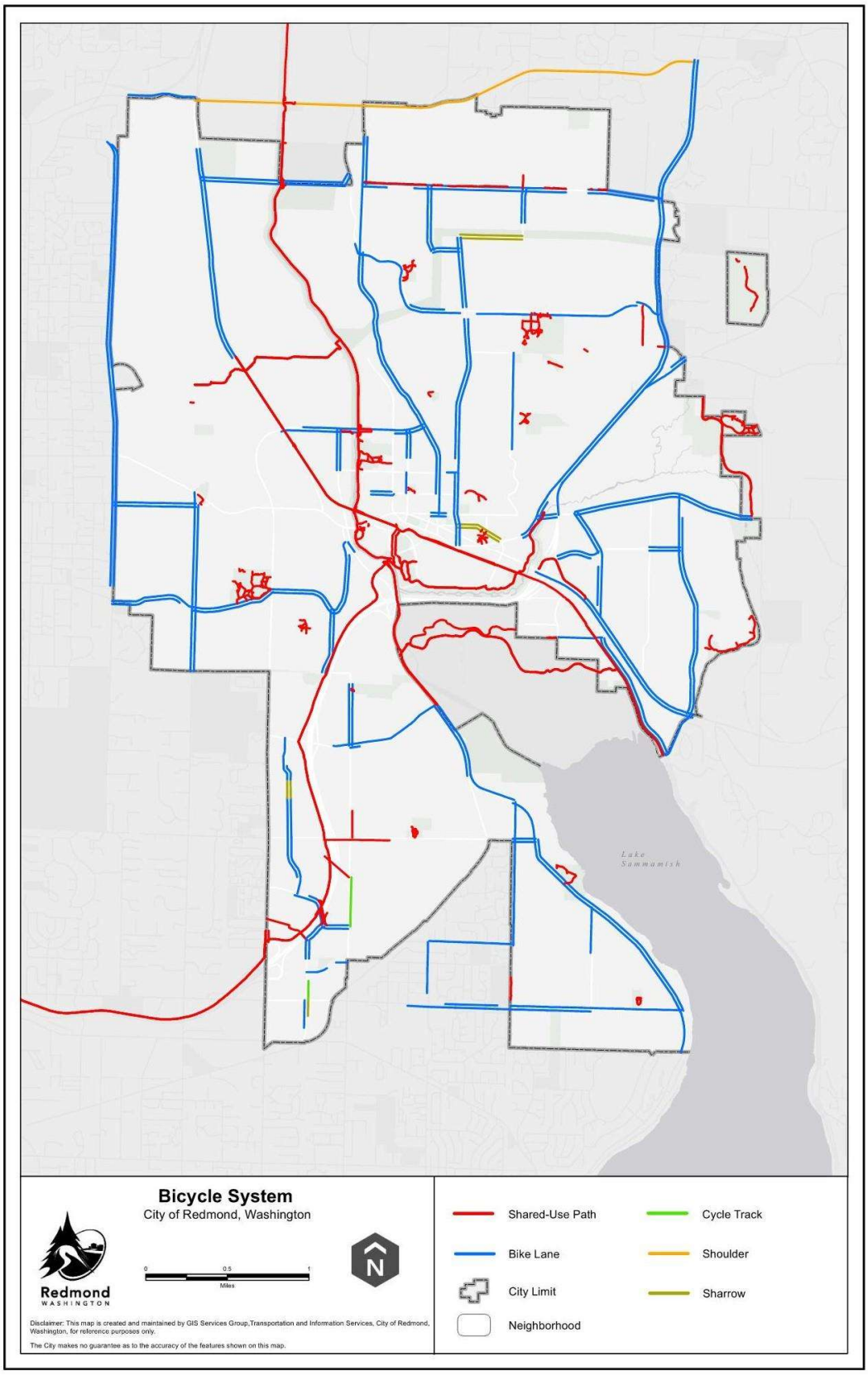
Redmond's bicycle system comprises 77 miles of bicycle facilities, including bicycle lanes, shared lanes, and shared paths that are also counted as part of the pedestrian system. Table 4-5 summarizes Redmond's bicycle system by facility type. Figure 4-6 shows a map of Redmond's bicycle system.

TABLE 4-5 REDMOND BICYCLE SYSTEM

Facility Type	Miles
Bicycle Lane	56.6
Cycle Track	0.3
Shared Lane (Sharrow)	1.6
Substandard bicycle lane	4.8
Shared Path – Paved (City)	3.1
Shared Path – Paved (County)	7.6
Shared Path – Paved (State)	3.1

* Some shared paths do not meet bicycle facility width standards and so are not included in the table

FIGURE 4-6 REDMOND BICYCLE SYSTEM MAP



Freight Access and Distribution

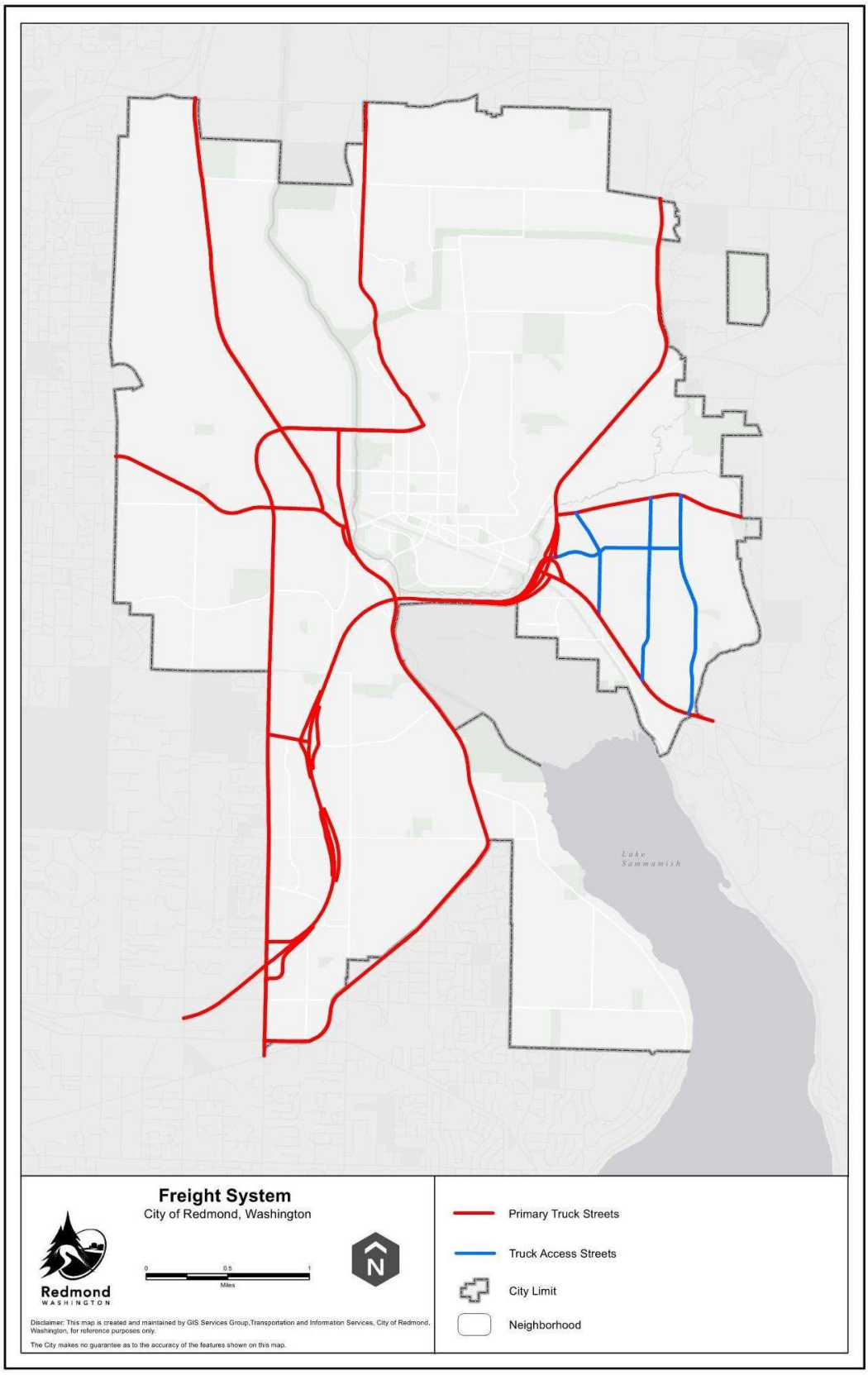
Redmond maintains a 36-mile two-tier freight route system that includes "primary truck streets," "truck access streets," and the SR 520 freeway. Primary truck streets accommodate through truck traffic in Redmond. They are arterials that directly connect with regional roadways like SR 520 or that currently have high volumes of trucks and are predicted to have high volumes of trucks in the future. Truck access streets connect the major industrial and commercial area in the Southeast Redmond neighborhood with primary truck streets. Truck access streets support access and movement of trucks between manufacturing companies and primary truck streets, which are important to the economic vitality of manufacturing companies. Designating truck access streets is not meant to increase truck volumes on those streets, nor intended to increase the speed of trucks on truck access routes.

Table 4-6 summarizes Redmond's freight route system by facility type. Figure 4-7 shows a map of Redmond's freight route system.

TABLE 4-6 REDMOND FREIGHT SYSTEM

Facility Type	Centerline Miles
Primary Truck Street	20.8
Truck Access Street	4.1
SR 520 (including ramps)	10.9

FIGURE 4-7 REDMOND FREIGHT SYSTEM MAP



Parking

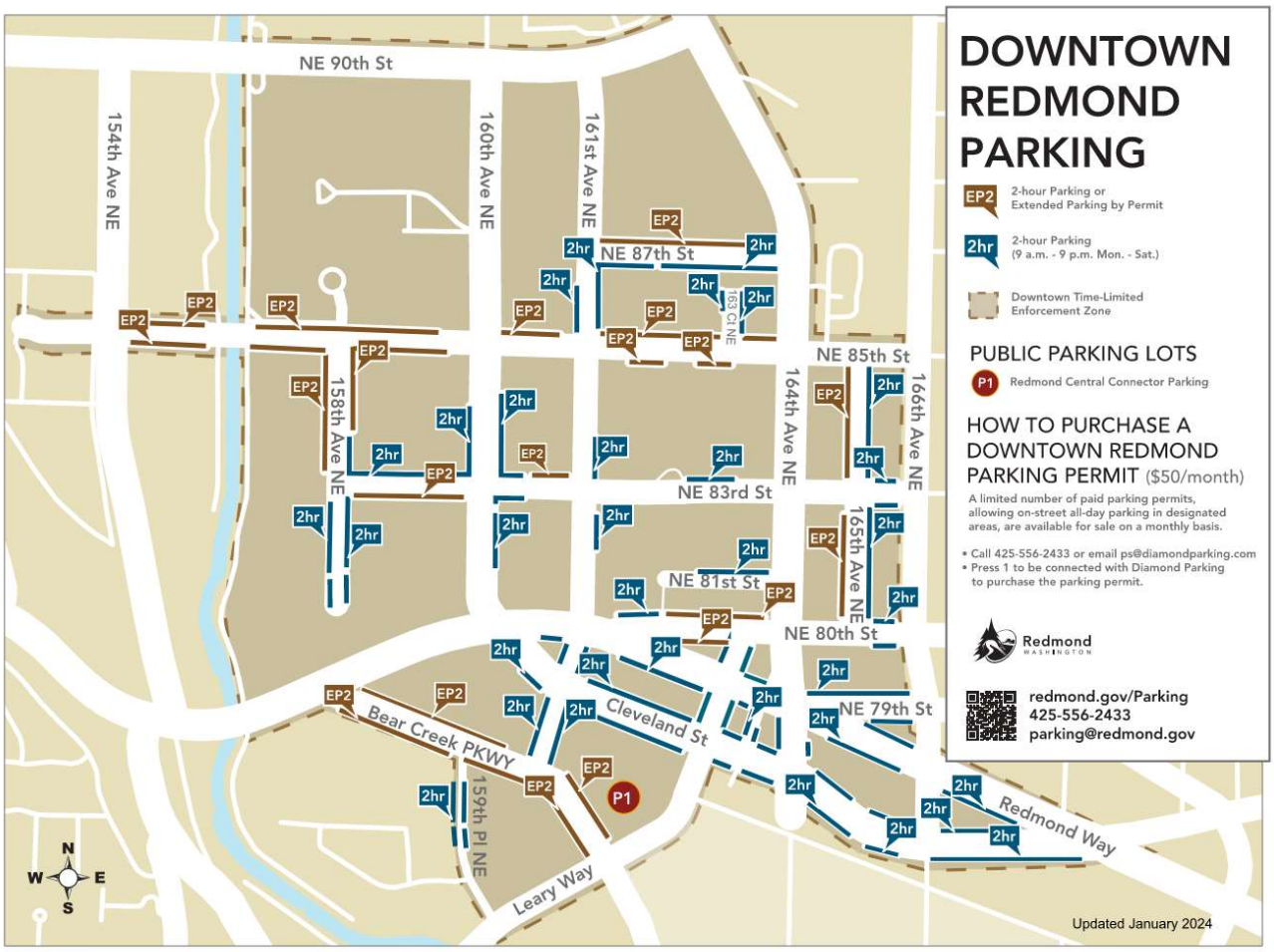
Outside of Downtown Redmond, Redmond's public parking supply consists almost entirely of on-street parking. This parking is distributed throughout the city, with the majority being on-street parking on local streets in residential neighborhoods. In most parts of Redmond, on-street parking supply far exceeds demand. Redmond does not track the total amount of on-street parking citywide. Downtown Redmond is an exception, where the City has begun to manage the on-street parking through time limits and all-day permits to bring supply and demand into better balance in high-demand areas.

Information about the parking supply in Downtown is summarized in Table 4-7. In Table 4-7, "commercial" means a lot or garage with a mixture of different shared of single use types; "city" means parking for City-related uses and services; "civic" means parking for civic, county, or municipal-related uses like schools, fire stations, community centers, and the library; "public" means park-and-ride and publicly-managed free or pay lots; "private" means not for public use and access may be restricted. Figure 4-8 shows a map of where the City manages the on-street parking supply.

TABLE 4-7 DOWNTOWN REDMOND PARKING

Type	Stall Count
On-Street	1,156
Off-Street – Commercial	9,882
Off-Street – City	613
Off-Street – Civic	433
Off-Street – Public	613
Off-Street – Private	524

FIGURE 4-8 DOWNTOWN ON-STREET PARKING MANAGEMENT MAP



Inventory of Programs

Transportation Demand Management

The City sponsors a robust transportation demand management (TDM) program to expand mobility and access, improve travel choices, and support continued growth and development. TDM includes strategies that change travel behavior – how, when, and where people travel – in order to increase transportation system efficiency and achieve specific objectives, such as improved mobility, road and parking cost savings, increased safety, energy conservation, and pollution emission reductions (Victoria Transport Policy Institute).

Redmond's programs include:

- Partnerships with Businesses and Organizations. Redmond partners with businesses and non-profit organizations in the community to increase mobility and access. For example, Hopelink works to provide Redmond community members educational opportunities and access to alternative transportation services. During 2020 Hopelink was able to connect over 70 Redmond

residents to transportation resources and services such as ORCA LIFT, ORCA RRFP, and annual subsidized cards. The Greater Redmond Transportation Management Association (GRMTA) has connected Redmond businesses to grants, new programing, and provided clarity on transportation needs during the pandemic. As the need for outdoor dining grew during the pandemic, the GRTMA worked with neighborhood businesses to develop pedestrian safety plans and install safety measures to support expanded outdoor business operations in downtown.

- GoRedmond. The GoRedmond program provides incentives and other resources for commuters, employers, and schools, helping them make travel choices that benefit them and the community. For example, a GoRedmond grant was used to supply Hopelink with pedestrian trolley carts to make it more convenient for food bank customers to use transit. Redmond's large employers have robust programs of their own, substantially reducing single-occupant vehicle travel in favor of other modes.
- Transportation Management Programs. Since the mid-1980s, all new major commercial developments in Redmond have been required to implement programs that reduce single-occupancy vehicle travel. Some multifamily developments also require transportation management programs when developers seek reduced off-street parking. Elements of these programs include on-site information and resources for alternative travel choices, designated carpool and vanpool parking spaces, and ongoing monitoring and measurement of program success.

Community Transportation Services

Community transportation services comprise a suite of services to meet critical mobility needs that are not well served by private or traditional public transit. Hopelink operates three of these services: Dial-A-Ride Transit (DART), in partnership with Metro, which provides semi-fixed-route public transit; Medicaid Transportation for non-emergency medical transportation; and the Mobility Management program, which provides travel education, supports the coordination of special needs transportation, and analyzes the need for and recommends improvements to mobility services.

This collection of services also includes Metro's Access Transportation, which provides paratransit service required under the Americans with Disabilities Act (ADA), and could in the future include services like Metro's Community Van, which currently operates in several Eastside communities as a supplement to fixed-route bus service. Hopelink offers more information about additional programs online at https://www.hopelink.org/need-help/transportation.

Regional Transportation

Redmond participates in a variety of statewide and regional forums to advance its transportation interests in the region. Redmond's regional interests include:

- SR 520, I-405 corridors, and I-90 corridors. Redmond supports completion of multimodal improvements throughout these corridors to support regional mobility.
- Eastside arterials. Redmond shares key arterials with neighboring jurisdictions that often function as alternatives to freeway use, subjecting arterials to significant regional pass-through traffic. Redmond's interest is in connecting regional destinations while ensuring that arterial corridors are compatible in scale with the City's land use and community character goals.

- Regional trails. Redmond is connected to an exceptional regional trails network and works with partners to connect and improve these trails to improve mobility for those walking, rolling, and biking.
- Public transit. As noted elsewhere, Redmond partners with Metro and Sound Transit to deliver public transit service in Redmond. The City advocates with both agencies on both policy and service decisions. Both Metro and Sound Transit have governing or advisory bodies that include local elected officials. Redmond currently has a councilmember appointed to the Regional Transit Committee, which advises the King County Council on transit-related policy.
- Transportation funding. The City advocates for transportation funding to support capital projects – such as freeway tolling that supports capital improvements in freeway corridors – as well as system maintenance.
- Environmental sustainability. Redmond's pursuit of environmental sustainability goals is enhanced by working regionally. Specific issue areas include alternative fuels that reduce pollution from ozone, particulates, and greenhouse gases; and water quality improvements.
- Parking. Parking in Redmond is a regional issue in that regional entities like transit agencies control some of the off-street parking supply in Redmond. Transit agencies are beginning to manage parking through pricing, a strategy supported in regional planning documents.
- Technology. Transportation technology is rapidly evolving, as are the potential applications of technology to improving mobility. For example, Redmond together with other jurisdictions is implementing technology like Intelligent Transportation Systems and adaptive signals to use the existing system efficiently. As more devices become more connected, Redmond and others will have the ability to gather and analyze large amounts of data to make both operational and policy decisions. This ability has privacy and ethical implications that must be considered.

Appendix B

Multimodal Level-of-Service Standards

The Growth Management Act (GMA) (RCW 36.70A) requires that communities establish a level of service (LOS) standard for all locally owned roads and locally or regionally operated transit routes. The GMA gives wide latitude to communities about how to go about establishing LOS standards and does not prescribe any specific methodology. The primary function of establishing an LOS standard is to ensure that the community builds new infrastructure in a way that keeps pace with growth. The GMA amended by HB 1181 in 2023 to ensure that communities adopt LOS standards that focus more on just vehicle travel—in other words, communities must adopt multimodal LOS or MMLOS standards.

In addition to GMA requirements, PSRC's multi-county planning policies also require that communities consider all modes when planning.

How LOS Standards Are Used

Before identifying MMLOS recommendations for Redmond, it is important to understand how LOS standards can be used by jurisdictions. There are two main ways that LOS standards are used:

- Transportation Concurrency – Transportation concurrency, often simply referred to as concurrency, is a fundamental element of the GMA. When LOS is referred to in the GMA, it is specifically related to transportation concurrency. At its core, the transportation concurrency LOS standard is established within the Transportation or Capital Facilities Element of the Comprehensive Plan to ensure that there is adequate transportation infrastructure in place to serve the planned growth identified in the Land Use Element. As noted earlier, the GMA does not prescribe a specific LOS standard, which is a recognition that communities may have differing expectations of how the transportation system functions and what constitutes a satisfactory LOS.
- Development Review and Permitting – Another area where LOS standards are frequently applied is for development review. In this case, the LOS standard is applied when preparing a transportation impact analysis or environmental impact statement. If the development causes the LOS standard not to be met or worsens an already substandard condition, mitigation can be identified to reduce or eliminate the conditions that caused the LOS standard violation. Permitting requirements can be set to require that LOS standards are met which can include frontage improvements, off-site mitigation, or a fee-in-lieu contribution.

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After the passage of the GMA in 1990, communities generally adopted vehicle LOS standards that were used for both transportation concurrency and development review and permitting. In other words, the same metric and standard were applied to both transportation concurrency and for a transportation impact analysis.

MMLOS in Redmond

Within the transportation planning community, Redmond has long been recognized as a leader in multimodal transportation planning. Specifically, Redmond adopted the first plan-based multimodal transportation concurrency LOS standard in 2008. This MMLOS standard is still in use today and many communities throughout Washington State have emulated Redmond's plan-based concurrency LOS standard.

Redmond's Transportation Concurrency LOS Standard

Redmond's LOS standard for transportation concurrency is rooted in the city's multimodal Transportation Facilities Plan (TFP). The TFP is prepared in conjunction with the Comprehensive Plan's Land Use Element and considers the growth in population and employment within Redmond and the neighboring jurisdictions. Unlike systems that focus on the performance of the vehicle network, Redmond's concurrency standard tracks implementation of the improvements identified in the TFP and requires that the city build new investments ahead of or at-pace with growth identified in the Comprehensive Plan.

A simple way to think of Redmond's transportation concurrency LOS standard is as follows:

- Redmond can accommodate 20 percent of planned growth so long as it has built or committed funding to build 20 percent of the transportation improvements defined in the TMP.

Since the TFP is fundamentally multimodal, Redmond's transportation concurrency LOS standard is also multimodal since it does not focus on building infrastructure solely for vehicles.

In addition to the MMLOS transportation concurrency standard, the TMP also identifies a number of other multimodal performance measures, as shown in **Figure 1**.

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Figure 1: City of Redmond Transportation Performance Measures

MMLOS Enhancements for Redmond

As part of Redmond 2050, Redmond is refining the way that transportation system supply and demand are calculated, shifting from a calculation based on person-miles traveled to a calculation based on person trips. This change is to simplify calculations and align with the proposed changes

to Redmond's transportation impact fees, which are used, in part, to fund new transportation infrastructure using a one-time fee paid for by new development.

Of the other TMP performance measures that relate to MMLOS, they each have merit in evaluating the performance of the transportation system and identifying new projects.

- **Connectivity** – this performance measure can help to identify areas of Redmond that are physically proximate, but where the actual travel distance is long. The classic example is of a cul-de-sac neighborhood that might be a few hundred feet from a shopping area, but it might be more than a mile to get to that shopping area because there are no roads, paths, or sidewalks connecting the two. Connectivity is a key measure being explored by WSDOT as the agency looks to adopt MMLOS metrics and standards. This performance measure does not need to be recalculated frequently as it is complex to calculate and does not change unless a new connection is made.
- **Network Completion** – this is an important measure of how complete the street, active transportation, and transit networks are relative to an "ultimate" build-out condition.
- **Mode Share** – calculating the share of travel by means other than SOV travel is required for regional growth centers by the PSRC multi-county planning policies. This performance metric will be maintained to monitor progress on shifting how people travel through denser land uses and more multimodal connectivity.
- **Vehicular Congestion** – the current metric measured in average seconds of delay per mile is useful for a traffic engineer but may not be understandable to the layperson. This performance measure will be changed for how vehicular congestion is calculated using standard measures from the Highway Capacity Manual for intersection delay or roadway segment delay. Bellevue, for example uses both intersection volume/capacity ratios and HCM roadway segment delay to calculate vehicle delay. It is important to note that it is not recommend to adopt a vehicular congestion LOS standard, but measuring vehicle congestion as part of a multimodal approach to identifying transportation projects is an important aspect of multimodal transportation planning.
- **Transit Ridership** – given the level of investment in transit in Redmond and surrounding communities. The City's current approach of reporting data from King County Metro and Sound Transit will continue.
- **Safety, Environment, and Street Preservation** – these performance measures are important for the city to track but are less-related to MMLOS.

Level of Traffic Stress for MMLOS

One innovation that has occurred since the last TMP update is the idea of the Level of Traffic Stress, or LTS, as an MMLOS performance measure. LTS is similar to vehicle LOS in that it can consider various features of a sidewalk, roadway, bike lane, cycletrack, or trail and calculate how well it accommodates active modes (walking, biking, scooters, wheelchairs, etc.). However, unlike

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vehicle LOS and earlier active mode LOS calculations, it is not based on how crowded an active mode facility is, rather it is based on how comfortable people are using that facility.

The idea of LTS stems from research in the 1990s from the Mineta Transportation Institute at San Jose State University in California. Initially, the research focused on bicycling and found that many people were uncomfortable bicycling in a vehicle lane on busier streets with higher speeds. In fact, some people were uncomfortable enough to determine that bicycling was not a viable means of travel for them, even though it was permissible under the law. Similar findings were made for bicycle lanes—while they can work well on smaller, slower, lower-volume streets, most people do not feel comfortable bicycling in a bike lane on a high-speed arterial street. This lack of comfort pushes some people who might bike to drive instead. Since the initial work on bicycle LTS, the idea has also spread to pedestrian travel. Similarly, greater separation from fast, high-volume vehicle travel makes walking more comfortable and thus a more viable means of traveling between places. LTS is measured on a scale of 1 to 4, with 1 being the most comfortable and 4 being the least comfortable. Often LTS 1 is referred to as a facility where small children or the elderly would feel completely comfortable traveling and LTS 4 is where people will only travel out of absolute necessity. Keep in mind that it may not always be feasible to achieve LTS 1 when considering impacts to adjacent land uses, the cost to build a facility, or environmental issues. Therefore, cities that have adopted LTS tend to have a range of LTS targets, much like cities sometimes allow for poor vehicle operations in certain areas in consideration of other constraints.

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Bicycle Level of Traffic Stress

The Redmond Bicycle Design Manual provides guidance on bicycle facility selection by analyzing characteristics of the street to determine the appropriate bicycle facility type for that street. Bicycle Level of Traffic Stress (LTS) is a key component that aims to address the needs, skills, and desires of a wide range of bicyclists. Figure 2 below shows different levels of comfort with bicycling and the surveyed percentage of the population that falls within them. The "Interested but Concerned" percentage of the population - those who would like to ride a bicycle more but have concerns about their personal safety - is the largest percentage of the population and so is the design user for the facilities and treatments as shown in the manual.

A bicyclist's perception of their personal safety riding on a given street is greatly influenced by their proximity to and interaction with motorized traffic. At low volumes and speeds of traffic, many people feel safe and comfortable sharing the street with traffic or crossing the street in unmarked crossings. As traffic speed and volumes increase, their perception of safety degrades significantly, resulting in a feeling of increased stress and discomfort.

Figure 2: Bicycle Facility Design User Profiles

Comfort Typology of Bicyclists

Design User Profile	Non-Bicyclist	Interested but Concerned	Somewhat Confident	Highly Confident
Bicycling Preferences	Uncomfortable bicycling in any condition, have no interest in bicycling, or are physically unable to bicycle.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separate bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic, will use roads without bike lanes.
Percent of Population	31-37%	51-56%	5-9%	4-7%

Note: the percentages above reflect only adults who have stated an interest in bicycling.

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A bicycle level of traffic stress (LTS) rating from 1 to 4 is used in Redmond's Bicycle Design Manual to classify streets based on how stressful they are for riding a bicycle, with LTS 1 being the least stressful and LTS 4 being the most stressful.

Table 1 shows the LTS rating system created for the City of Redmond's streets. The LTS ratings consider characteristics of the street including posted speed limit and the amount of motor vehicle traffic (Average Annual Daily Traffic, or AADT) as well as characteristics of the bicycle facility on the street.

Table 1: Bicyclist Level of Traffic Stress on Streets in City of Redmond

Roadway Characteristics		Type of Bicycle Facility						
Posted Speed[1]	AADT	Mixed Traffic	Bicycle Boulevard	Bicycle Lane[2,3] (painted)	Buffered Bike Lane[2,3] (painted >/=2')	Buffered Bike Lane[4] (with vertical elements)	Separated Bike Lane[5] or Sidepath	Shared Use Path
< / = 20	<1500	1	1	1	1	1	1	1
	1501-3000	2	2	1	1	1	1	
	3001-6000	2	n/a	2	2	2	1	
25	<1500	1	2	1	1	1	1	
	1501-3000	2	2	2	1	1	1	
	3001-6000	3	n/a	2	2	2	2	
	6000+	3	n/a	3	2	2	2	
30	<1500	3	n/a	2	2	2	2	
	1501-3000	3	n/a	2	2	2	2	
	3001-6000	3	n/a	2	2	2	1	
	6000+	3	n/a	3	3	3	2	
35	<1500	4	n/a	4	3	2	1	
	1501-3000	4	n/a	4	3	2	1	
	3001-6000	4	n/a	4	3	3	1	
	6000+	4	n/a	4	3	3	2	
> / = 40	Any	4	n/a	4	3	3	2	

Notes:

1. Table assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
2. On-street parking adjacent to the bicycle facility increases the level of traffic stress.
3. Number of driveways and volume of turning motor vehicles increase the level of traffic stress.
4. Buffer includes intermittent vertical elements (precast curbs, flexible posts, etc).
5. Bike lane separated from motor vehicle traffic by a landscape strip, parking, or other robust vertical protection.

Table adapted from: Mekuria, Maaza C.; Furth, Peter G.; Nixon, Hilary (2012) *Low-stress bicycling and network connectivity:* Mineta Transportation Institute. *WSDOT Design Bulletin Designing for Level of Traffic Stress* (2022) and NACTO *Urban Bikeway Design Guide.* Bicycle facility types as defined in the City of Redmond Bicycle Design Manual (2023).

Transit Level of Service Standards and Priority Connections

The priority connections and service standards in the following map identify the most important local and regional connections for Redmond and the levels-of-service needed to meet community needs. The following process was used to develop the priority connections and service standards:

- Identify priority connections between key destinations, including neighborhood centers and major regional destinations, based on travel needs and demand, and desired connections between transit services.

- Apply network design principles, focusing on providing frequent transit service that connects Redmond's centers to the region, and Redmond neighborhoods to centers and the regional transit spine. Each connection is designed to meet a wide variety of user groups and trip purposes, and meet the needs of multiple markets.

- Identify preferred travel paths that represent a balance between travel speed and coverage (access to transit) for Redmond's centers and neighborhoods.

- Set appropriate "Service Families" that define the desired level of service in terms of the frequency of service by time of day. These standards are established by identifying potential transit demand based on population and employment density measures (persons and jobs per acre), as well as overall travel demand measures (all-day person trips) along the corridor.

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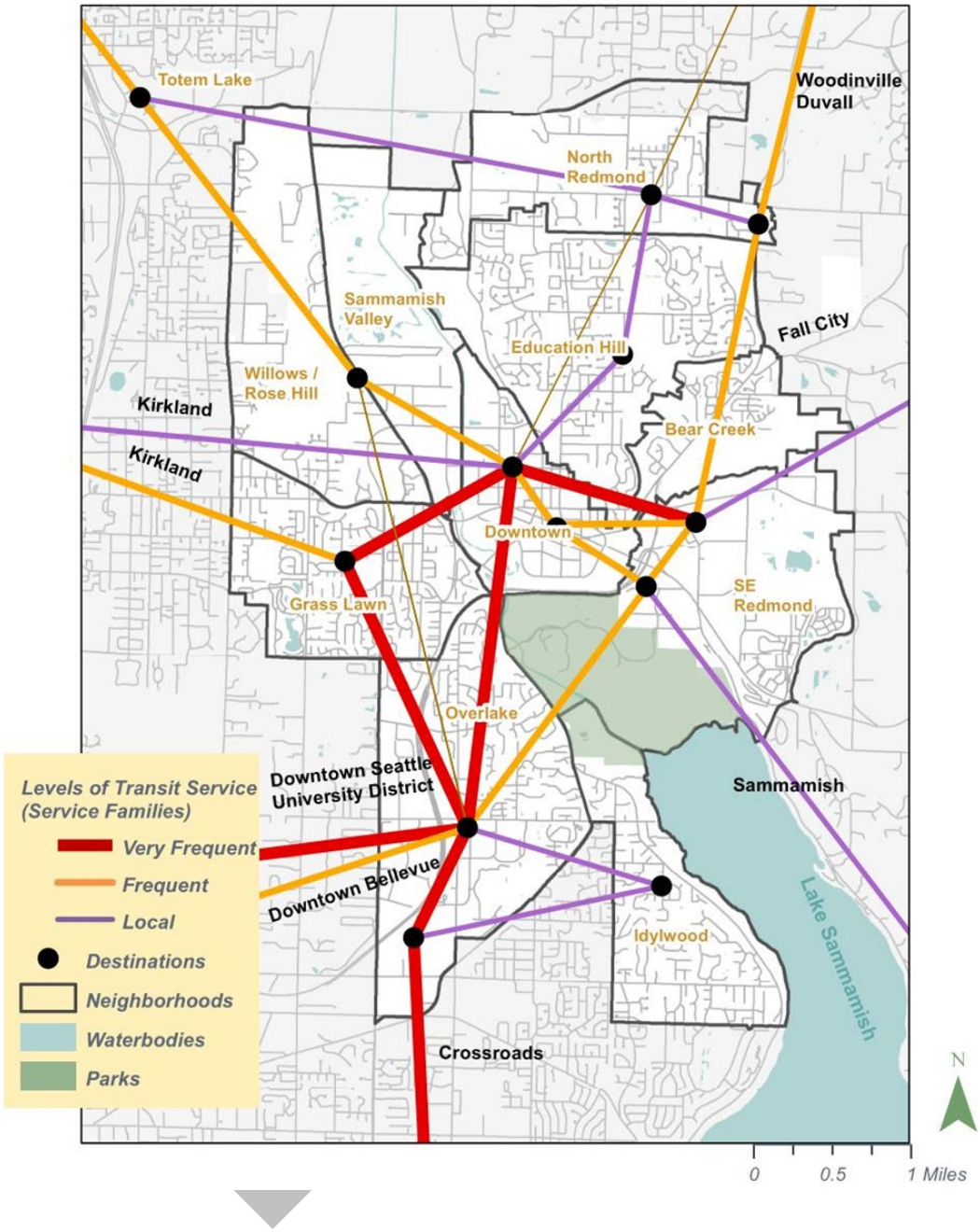

Vehicle Miles Traveled (VMT)

The HB 1181 (2023) amendments to the GMA require cities to identify actions that cities can take to reduce VMT as part of future Comprehensive Plan updates. In the Redmond 2050 EIS, an analysis was performed on VMT in Redmond. The results are shown in **Table 2**.

Table 2 – Average Weekday VMT, Total and Per Capita

Existing Condition		2050 No Action		2050 Preferred Alternative	
VMT	VMT per Capita	VMT	VMT per Capita	VMT	VMT per Capita
540,500	8.7	695,200	6.9	766,490	6.6

Redmond has established a 50% per-capita VMT reduction target from 2017 levels by 2050. It is anticipated to remain steady at 7,300 miles per person per year without local action. This VMT reduction target is set in consideration of ongoing vehicle electrification strategies and policies at the state and federal and local levels. The VMT reduction targets may need to be revised once WSDOT or PSRC establish state and regional VMT targets in the coming years.

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Appendix C

Estimated Multimodal Level-of-Service Impacts to State-Owned Facilities

The Growth Management Act requires that jurisdictions evaluate the impact of planned land use and transportation network changes on state facilities. As part of the Environmental Impact Statement (EIS) for 2050 Redmond Comprehensive Plan update, the City of Redmond performed a multimodal transportation impact analysis across the entire city, including the two state routes that travel through Redmond: SR 202 and SR 520. This memorandum summarizes the findings of the multimodal LOS impacts on these two facilities.

Context

SR 202 travels through much of the city as either a Principal or Minor Arterial. It extends from the north city limit at NE 124th Street where it is also known as Redmond-Woodinville Road into Downtown Redmond where the road name changes to 164th Avenue NE. SR 202 then turns east and follows the alignment Redmond Way/Redmond-Fall City Road until it leaves the city just east of 188th Avenue NE.

SR 520 runs as a freeway from the city limit at 148th Avenue NE to its terminus at the intersection of Union Hill Road/Avondale Road.

Impact Summary

Impacts to state owned facilities in Redmond were assessed by comparing the 2050 No Action alternative (which assumes that the current Comprehensive Plan remains unchanged) to the Action Alternatives. The EIS presents the full analysis for all three Action Alternatives, but for brevity, only the Preferred Alternative is presented in this memorandum. The 2019 Existing Conditions data is also presented for context.

Impacts are described quantitatively from the perspective of vehicle traffic operations and qualitatively for active modes and transit. Note that this analysis also considers MMLOS metrics related to Level of Traffic Stress (LTS) described in Appendix B.

Traffic Operations

Traffic operations were specifically evaluated at two intersections along SR 202 as part of the EIS (intersections are where arterial streets are most constrained and are commonly the basis for traffic operations impact assessments):

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- Redmond Way/NE 70th Street
- Redmond Way/East Lake Sammamish Parkway

Freeway operations are evaluated along segments of roadway and two sections of SR 520 were evaluated as part of the EIS:

- West of 148th Avenue NE
- East of West Lake Sammamish Parkway

For simplicity, traffic operations results are converted from a quantitative measurement of traffic flow to a letter grade that describes the degree of congestion during the PM peak hour. LOS A represents a virtually empty road and LOS F indicates heavy congestion where the demand for travel exceeds the capacity of the road. Specific details on the LOS thresholds and quantitative units of measurement are provided in the EIS. WSDOT has set a LOS target of LOS E for SR 202 and LOS D for SR 520. These LOS targets seek to maximize the utilization of the roadway while keeping traffic congestion levels in a range that is typical for a large urban area.

The PM peak hour traffic operations results are summarized in **Table 1**.

Table 1: State Owned Facility LOS

State Facility	Existing (2019) Conditions	2050 No Action	2050 Preferred Alternative
SR 202: Redmond Way/ NE 70th Street	LOS B	LOS D	LOS F
SR 202: Redmond Way/ E Lake Samm Pkwy	LOS E	LOS F	LOS F
SR 520: West of 148th Ave NE*	LOS C	LOS D	LOS E
SR 520: East of W Lake Samm Pkwy*	LOS B	LOS B	LOS B

Note: * The peak direction of travel in the PM peak hour is eastbound. The results in this table are for eastbound travel only.

The results in Table 1 show that LOS is expected to degrade, indicating more traffic congestion by 2050 because of growth in Redmond and the region as a whole. The Preferred Alternative shows more LOS degradation at SR 202/Redmond Way/NE 70th Street and SR 520 west of 148th Avenue NE compared to the No Action Alternative. This additional traffic congestion is generally attributable to the fact that the Preferred Alternative has a greater level of population and employment growth compared to the No Action Alternative. As described in the Comprehensive Plan EIS, under the No Action Alternative, Redmond would not be able to accommodate its share of regional population or employment growth, which is inconsistent with regional planning policies and requirements set forth by PSRC.

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The higher levels of growth under the Preferred Alternative would result in more traffic congestion, but it is important to consider that the Preferred Alternative has lower per-capita vehicle miles traveled (VMT) and higher non-private vehicle mode share compared to the No Action alternative. In other words, while Redmond would be accommodating more residents and jobs with the Preferred Alternative, the travel would be more efficient from the perspective of fewer people driving and more people waking, rolling, biking, or using transit. Reducing dependance on driving and the environmental impacts of vehicle travel is an important goal of the Comprehensive Plan.

Transit Ridership

Based on data in the EIS, transit ridership is anticipated to grow between 2019 and 2050, with the highest levels of transit ridership under the Preferred Alternative. Additional people riding transit, particularly light rail, will reduce the impacts on WSDOT facilities; therefore, higher transit ridership is identified as a benefit to state owned facilities. **Table 2** summarizes average weekday transit boardings occurring anywhere in Redmond under the three scenarios.

Table 2: Citywide Transit Ridership

Transit Ridership	Existing (2019) Conditions	2050 No Action	2050 Preferred Alternative
Average Weekday Boardings	11,000	26,500	28,800

Active Modes

Similar to transit ridership, additional growth in population and employment will increase the number of walking, rolling, and bicycling trips in Redmond. In addition, much of the growth planned for 2050 is expected to be in transit-oriented, mixed-use neighborhoods where people tend to use active modes more. The Comprehensive Plan EIS did not specifically evaluate active mode share, but it does track non-SOV mode share for all trips and commuting trips. The results are presented in **Table 3**.

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Table 3: Citywide Non-SOV Mode Share

Mode Share	Existing (2019) Conditions	2050 No Action	2050 Preferred Alternative
Non-SOV Mode Share – All Trips	55%	56%	56%
Non-SOV Mode Share – Commute Trips	36%	43%	44%

The higher non-SOV mode shares under the 2050 Preferred Alternative are beneficial to state owned facilities from the perspective of reducing vehicular demand. However, additional people walking, rolling, and biking on or parallel to some state facilities could be an issue if there are not comfortable places for active mode users to travel. Along SR 520, this is not an issue because of the SR 520 trail and Bear Creek Trail, that parallel the freeway. Additionally, portions of Redmond Way are parallel to the Redmond Central Connector trail and many of the sidewalks through Downtown Redmond have parking and or landscape buffers to separate pedestrians from vehicle traffic. However, there are segments of Redmond-Woodinville Road (see **Figure 1**) and Redmond-Fall City Road that have unbuffered bike lanes and basic attached sidewalks that (while better than no facility) are not likely to meet WSDOT's target for LTS 2 or better on these facilities. To mitigate this potential impact to LTS, Redmond will look for opportunities to identify parallel bicycle routes, opportunities to enhance the pedestrian environment, and/or roadway improvements to improve active mode infrastructure in conjunction with WSDOT.

Figure 1: View north along Redmond-Woodinville Road Showing Standard Bike Lanes and an Unbuffered Sidewalk (source: Google, 2023)

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Appendix D – Travel Demand Forecast

Background

The City of Redmond's Comprehensive Plan update develops a comprehensive and multimodal vision for the future and will guide the City's transportation investments and activities through 2050. This memo delves specifically into the travel demand modeling undertaken to support the Comprehensive Plan update, and the associated model outputs that were analyzed. Specifically, the results of the travel demand modeling were used to inform and refine the projects included in Appendix G, Transportation Facilities Plan

Performance Measures

The performance measures shown in **Figure 1** are used to demonstrate the City's progress toward meeting its transportation goals. The travel demand model was used to analyze selected measures under a 2050 timeframe, including mode share, transit boardings, congestion, and air quality. The City considered several future land use alternatives, as documented in the Redmond 2050 Environmental Impact Statement (EIS). For the sake of brevity, the travel demand modeling results for just the Preferred Alternative are presented here.

Figure 1: City of Redmond Transportation Performance Measures

Mode Share

Currently, the single occupancy vehicle (SOV) is the most common form of travel in Redmond. The City of Redmond seeks to provide a range of transportation options so that residents, employees, and visitors can choose alternatives to the SOV and, in doing so, can reduce congestion and negative environmental consequences of driving.

To track progress on the goal of providing alternative transportation options, the City of Redmond set a target in 2013 that 53% of all trips and 45% of commute trips be taken via a non-SOV mode by 2030. As shown in **Table 1**, under the 2050 analysis horizon, 44% of commute trips are estimated to be made by non-SOV modes, missing the 2030 target by 1%. The share of all trips made by non-SOV modes is forecasted to be 56%, which surpasses the 2030 target. Under the Preferred Alternative, households and jobs are more concentrated near transit, including the new Link light rail stations in Overlake, Marymoor, and Downtown, which results in the higher non-SOV mode share for all trips. Redmond employment centers in Overlake and Downtown draw employees from across the Seattle-Bellevue metro region, and non-SOV modes may be less practical for some commuters, particularly those located away from high-frequency transit. This result indicates that there is room for transportation demand management strategies and the opportunity for further enhancements to the already widespread employer shuttle programs active in Redmond.

Table 1. Mode Share, 2050 Preferred Alternative

Scenario	Non-SOV Mode Share	
	All Trips	Commute Trips
2030 Target	53%	45%
2050 Preferred Alternative	56%	44%

Source: Fehr & Peers, 2023.

Transit

Transit ridership is defined as average weekday boardings for all transit stops/stations within Redmond. This includes boardings on Metro and Sound Transit buses, as well as Link light rail since service to Redmond will be operational by 2025.

Table 2 summarizes the 2030 target transit boardings and the 2050 Preferred Alternative. The Preferred Alternative is expected to have about 2,000 more daily transit boardings than the 2030 target. Increasing transit ridership is a critical component of the City's growth strategy for the Preferred Alternative, which directs most additional housing and employment to the Downtown and Overlake urban centers.

Table 2. Daily Transit Boardings, 2050 Preferred Alternative

Scenario	Daily Transit Boardings
2030 Target	26,700
2050 Preferred Alternative	28,800

Source: Fehr & Peers, 2023.

While it is notable that there are forecast to be more transit trips under the 2050 Preferred Alternative than the 2030 target, it is worth considering that there are another 20 years of growth in employment and population between the 2030 target and the 2050 Comprehensive Plan horizon. If we were to scale the 2030 target according to employment and population growth, we would find the forecasted 2050 target to be around 34,600 daily transit boardings, which is greater than the forecasted transit boardings in the 2050 Preferred Alternative.

Congestion

Vehicular congestion is expressed as the average delay (in minutes and seconds) incurred during a one-mile trip on principal, minor, and collector arterials in Redmond during the p.m. peak hour (5 p.m.-6 p.m.). **Table 3** summarizes the arterial delay per mile for the 2030 target and the 2050 Preferred Alternative. Arterial delay under the Preferred Alternative is projected to be 56 seconds, ten seconds more than the 2030 target of 46 seconds.

While the Preferred Alternative does not meet the 2030 target, the City acknowledges that delay for roadways users will continue to grow as long as the number of jobs and housing units reliant on SOV travel increases in Redmond. Travelers can avoid peak-period delay by choosing travel modes that are not subject to congestion like biking, walking, or transit that operates in its own lane/right-of-way; shifting the timing of trips; and by reducing unnecessary trips during peak periods. Realistically, Redmond cannot expand roadways to hold congestion levels constant in the future as many streets are already built out to the edge of the right-of-way. While there may be limited and strategic widening of roadways and intersections to address bottlenecks, widespread road widenings that would impact many homes and businesses are counter to the City's growth strategy.

Table 3. Peak Hour Arterial Delay, 2050 Preferred Alternative

Alternative	Arterial Delay per Mile
2030 Target	46 seconds
2050 Preferred Alternative	56 seconds

Source: Fehr & Peers, 2023.

Level of Service

Level of Service (LOS) is a qualitative measure that assesses the operational conditions of a roadway or intersection. The Highway Capacity Manual (HCM) is a widely used reference for evaluating and defining LOS. It categorizes LOS from A to F, with A representing free-flow conditions and F indicating congestion and conditions where demand exceeds the supply during the analysis period (typically the peak hour of the day). The City of Redmond has not set a target for intersection LOS, as it is impractical to provide a target LOS at all intersections during the peak hour when considering fiscal, environmental, and right-of-way constraints. It is important to note that every property in the City of Redmond has a roadway/vehicular connection and that the overall capacity of the transportation system increases when more people choose to walk, bike, or take transit, which take up far less space and fewer resources than driving a vehicle.

Because there is no 2030 target to compare the 2050 Preferred Alternative against, **Table 4** summarizes the expected traffic operations at key study intersections for the 2050 Preferred Alternative and the 2050 No Action Alternative. Under the Preferred Alternative, all study intersections are expected to operate at LOS E or F. Intersections that would operate with higher delay under the Preferred Alternative than the No Action Alternative are shown in bold. The traffic operations results for intersections near the city limits of Redmond also provide an indication of how traffic volumes and congestion may be affected in neighboring jurisdictions.

Table 4. Intersection Level of Service, 2050 Preferred Alternative

ID	Intersection	LOS / Delay (seconds)	
		2050 No Action	2050 Preferred Alternative
1	NE 124th St/Willows Rd	F / 97	**F / >120**
2	NE 90th St/Willows Rd	F / 92	**F / 104**
3	Redmond Way/148th Ave NE	F / >120	F / >120
4	Leary Way/W Lake Sammamish Pkwy	E / 68	E / 65
5	Union Hill Rd/Avondale Way	F / 117	**F / >120**
6	NE 70th St/Redmond Way (SR 202)	D / 47	**F / >120**
7	Redmond Way (SR 202)/E Lake Sammamish Pkwy	F / >120	F / 106
8	NE 51st St/148th Ave NE	F / 105	F / 85
9	NE 40th St/148th Ave NE	E / 66	E / 63
10	NE 24th St/148th Ave NE	F / 119	F / 116

ID	Intersection	LOS / Delay (seconds)	
		2050 No Action	2050 Preferred Alternative
11	NE 20th St/148th Ave NE	F / >120	F / >120
12	NE 24th St/152nd Ave NE	E / 61	**F / 93**
13	NE 40th St/156th Ave NE	E / 68	**E / 73**
14	Turing St/156th Ave NE	F / 117	**F / >120**
15	Bel-Red Rd/156th Ave NE	E / 69	E / 62

Note: All study intersections are signalized.
Source: Fehr & Peers, 2023.

Table 4 shows that several intersections are expected to operate with greater levels of delay and lower LOS scores under the 2050 Preferred Alternative compared to the 2050 No Action Alternative. The primary reason for this difference is the 2050 Preferred Alternative includes about 10,000 greater households, and 15,000 greater jobs than the 2050 No Action Alternative.

Table 5 shows projected 2050 volumes and LOS under the No Action Alternative and the Preferred Alternative for SR 520. Compared to the No Action Alternative, the Preferred Alternative would increase SR 520 volumes up to 7%, with the largest increase occurring in the eastbound direction east of West Lake Sammamish Parkway. However, this roadway segment is still expected to operate at LOS C[1]. The increased housing and job growth concentration in the Overlake and Downtown areas under the Preferred Alternative result in higher volumes on SR 520 west of 148th Ave NE, and LOS could fall to LOS E in both directions at this location. In addition, the increased volumes under the Preferred Alternative could exacerbate the eastbound queue spillback from the signals at NE Union Hill Road/Avondale Road and SR 202/East Lake Sammamish Parkway.

[1] This eastbound segment of SR 520 experiences PM peak hour congestion under 2023 conditions, but this is due to queues spilling back from the intersections Avondale Road and Union Hill Road and SR 202 and East Lake Sammamish Parkway. The freeway segment of SR 520 has enough capacity to meet current and future travel demands.

Table 5. SR 520 Operations, 2050 Preferred Alternative

Location	PM Peak Hour Volume / LOS			
	2050 No Action		2050 Preferred Alternative	
	EB	WB	EB	WB
East of West Lake Sammamish Parkway	4,250 / B	3,530 / B	4,540 / C	3,650 / B
West of 148th Avenue NE	5,540 / D	5,580 / D	5,620 / E	5,750 / E

Note: EB = eastbound and WB = westbound.
Source: Fehr & Peers, 2023.

WSDOT also considers the number of additional trips that may be added to a state highway segment. Per Design Manual Chapter 1130.09(2)(a), WSDOT considers a proposal to have a probable significant adverse impact to the state highway system if it meets either or both of these thresholds:

- Addition of ten (10) or more AM or PM peak-hour vehicle trips assigned to an individual approach leg to a state highway intersection.
- Addition of twenty-five (25) or more AM or PM peak-hour vehicle trips assigned to a state highway segment (2-way travel) or intersection (total 25 trips all legs).

Based on the projected growth, it is expected that the Preferred Alternative would exceed those thresholds on SR 520 from its terminus at Avondale Rd NE to I-405, SR 202 from NE 80th Street to NE 124th Street, and I-405 from NE 8th Street in Bellevue to NE 128th Street in Kirkland.
The increase in travel on WSDOT facilities is not driven solely by growth in Redmond. The surrounding cities and unincorporated King County are all expecting growth over the coming decades in line with the regional growth strategy outlined by PSRC.

Air Quality

The Comprehensive Plan recognizes the environment as a community priority. Transportation Element policies strive to improve access to environmentally friendly travel choices like walking, biking, and transit, and through individual project design. The following measures, which focus on air quality and vehicle-miles-traveled (VMT), provide insight into whether the transportation system in and around Redmond is doing its part for the environment.

The Preferred Alternative could result in approximately 65% more total greenhouse gas (GHG) emissions than the 2050 No Action Alternative. The increase in transportation emissions of the Preferred Alternative is driven by both the higher number of households and jobs as well as the type; the Preferred Alternative includes higher numbers of retail and industrial jobs as well as single family homes relative to the other alternatives.

Per capita emissions in the 2050 Preferred Alternative would be roughly 6% higher than in the 2050 No Action Alternative. The No Action Alternative is expected to generate approximately 208 $MTCO_2e$ per Redmond resident/employee, while the Preferred Alternative is expected to generate approximately 221 $MTCO_2e$ per Redmond resident/employee (driven by the energy emissions associated with greater employment growth).

Table 6. Lifespan GHG Emissions ($MTCO_2e$)

Type of Emissions	2050 No Action	2050 Preferred Alternative
Embodied Emissions	901,300	1,507,000
Energy Emissions	9,547,400	15,611,800
Transportation Emissions	1,091,100	1,965,400
Total Emissions	11,539,800	19,084,200
Emissions Per Capita	**208**	**221**

Notes: Data above reflects emissions expected to be generated by new development and does not include existing land uses and transportation. Lifespan emissions assume an average building lifespan of 62.5 years.
Sources: King County SEPA GHG Emissions Worksheet completed by Fehr & Peers, 2023; BKR Travel Demand Model and EMFAC2021 database analysis completed by Fehr & Peers, 2023.

Because the City's energy, fossil fuel, and GHG emissions goals are based on total reductions, the Preferred Alternative is less likely to meet the City's targets than the No Action. However, the contribution of the increment of growth under the Preferred Alternative should be considered relative to both the No Action Alternative's planned growth as well as the existing land uses. The

primary differences in growth and land use between the No Action and Preferred Alternative is that the Preferred Alternative would meet the Puget Sound Regional Council multi-county growth requirements for the City, while No Action would not. Moreover, the projected emissions per capita are expected to be less than similar development located elsewhere in the region given Redmond's proximity to light rail connecting to residential and employment centers around the region.

Vehicle Miles Traveled

The City aims to reduce per capita VMT by at least 50% by 2050. The travel demand model was used to assess the likelihood of achieving this goal under each alternative. For this analysis, VMT was summarized for all trips generated by households in Redmond (including the miles traveled both within and outside city limits).[2] Results for the Existing Condition and the 2050 Preferred Alternative are summarized in **Table 7**.

The Preferred Alternative would result in an increase of total VMT by over 41% compared to the Existing Condition, but the per capita VMT would decrease by 24%. The increase in total VMT is in line with projected population and job growth in the Preferred Alternative. The 24% reduction in VMT per capita in the Preferred Alternative as compared to the Existing Condition would not meet the City's goal of 50% reduction by 2050. To achieve this goal, broader action at the county and state level would likely be required to address factors beyond the City's control.

Table 7. Daily Vehicle Miles Traveled

Existing Condition		2050 Preferred Alternative	
VMT	VMT per Capita	VMT	VMT per Capita
540,500	8.7	766,490	6.6

Note: Per capita calculation is based on total projected population in Redmond.
Source: Fehr & Peers, 2023.

[2] Note that this is a different type of VMT summary than referenced in the GHG emissions section which includes 100% of VMT for trips that occur entirely within Redmond and 50% of VMT for trips that have only one end in Redmond, such as a commute trip made by someone who lives in Redmond but works outside Redmond).

Appendix E

Impacts to Neighboring Jurisdictions

Background

As part of the Redmond 2050 Comprehensive Plan Update a transportation evaluation was conducted in support of an Environmental Impact Statement (EIS). The EIS analysis incorporates a run of the Bellevue-Kirkland-Redmond (BKR) travel demand model which includes an evaluation of all major roadways in and around Redmond. Using output from the BKR model, we are able to assess how growth within Redmond and other communities in the Puget Sound Region affects traffic in the surrounding jurisdictions. The results in this memorandum include the following:

- Existing Conditions – the modeled traffic volumes from the base year 2019 BKR model.
- No Action – the 2050 forecast of traffic volumes assuming no change to Redmond's Comprehensive Plan and background growth in the surrounding communities.
- Preferred Alternative – the 2050 forecast of traffic volumes assuming the Redmond 2050 Comprehensive Plan Preferred Alternative and background growth in the surrounding communities.

These three BKR model run results were selected to show the degree of change that will happen regardless of any change on Redmond's part (the difference between 2050 No Action and Existing Conditions) and the specific effects of the Preferred Alternative (the difference between the Preferred Alternative and the No Action).

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Results Table

Table 1 presents the results of the BKR model runs for Existing Conditions, No Action, and the Preferred Alternative.

Table 1 – PM Peak Hour BKR Model Volumes for Roadways Between Redmond and Neighboring Jurisdictions

Roadway	Location	Existing (2019) Conditions	2050 No Action	2050 No Action – Existing*	2050 Preferred Alternative	Pref Alt – No Action
East Lake Sammamish Parkway	South of SR 202	1,990	2,690	*700 (1.0%)*	2,150	*-540*
SR 202	East of 188th Ave NE	3,320	3,430	*110 (<0.5%)*	3,480	*50*
Union Hill Road	West of 196th Ave NE	2,080	2,430	*350 (0.5%)*	2,460	*30*
Novelty Hill Road	West of 196th Ave NE	1,260	1,360	*100 (<0.5%)*	1,380	*20*
Avondale Road	North of NE 116th St	2,000	2,670	*670 (1.0%)*	2,630	*-40*
Red-Wood Road (SR 202)	North of NE 124th St	2,450	3,040	*590 (0.7%)*	3,050	*10*
NE 124th St	West of Willows Rd	3,890	5,210	*1,320 (1.0%)*	5,290	*80*
Redmond Way	West of 132nd Ave NE	2,650	3,640	*990 (1.1%)*	3,590	*-50*
SR 520	West of 148th Ave NE	7,920	10,980	*3,060 (1.1%)*	11,210	*230*
NE 24th St	West of 148th Ave NE	1,170	1,920	*750 (1.7%)*	2,060	*140*
Bel-Red Road	South of NE 20th St	2,030	2,680	*650 (0.9%)*	2,750	*70*
148th Ave NE	South of NE 20th St	2,750	3,600	*850 (0.9%)*	3,670	*70*
156th Ave NE	South of NE 24th St	2,150	2,960	*810 (1.1%)*	3,080	*120*
West Lake Sammamish Parkway	South of NE 24th St	330	760	*430 (2.8%)*	760	*0*

Note: * This column shows the absolute difference and annual growth rate between 2050 No Action and Existing Conditions.

Conclusions

Table 1 indicates that traffic volumes are expected to grow between the 2050 No Action and Existing Conditions. This growth is typical for Western Washington, which continues to see robust job growth and migration from many parts of the United States as well as other countries. For the most part the annual growth rate is about 1.0% (with a few locations higher or lower). This growth rate lower than the regional growth rate of 1.6% per year observed between 2010 and 2020, a period of rapid growth, and more in line with long-term average growth for the Puget Sound Region.

Some of the notable changes in traffic volumes shown in Table 1 include strong growth NE 24th Street (1.7%) which is reflection of long-planned growth in Redmond's Overlake regional growth center and Bellevue's Bel-Red neighborhood. However, growth on other Overlake-area roadways is more moderate, showing the benefit of light rail to provide mobility in one of the fastest-growing areas of King County. West Lake Sammamish Parkway also shows strong growth (2.8%) which is driven by a relatively low initial volume of traffic under existing conditions and busier traffic on parallel roads between SR 520 and I-90 like 156th Ave NE and 148th Ave NE. There may be opportunities to work with the City of Bellevue to manage demand on West Lake Sammamish Parkway, which otherwise is not expected to see substantial changes in land uses.

When comparing the growth between No Action and the Preferred Alternative, most roadways see a modest change in PM peak hour traffic of less than 100 vehicles per hour. At this level, most drivers would not be able to notice a change in traffic congestion levels. However, under the Preferred Alternative there are larger increases in traffic (greater than 100 vehicles per hour) on SR 520, NE 24th Street, and 156th Ave NE near the Overlake regional growth center. This change in traffic is caused by the greater land use intensities planned in Overlake under the Preferred Alternative compared to No Action. Adding more growth to Overlake allows Redmond to meet the regional growth targets in the most employment and transit-rich part of the city. The only other notable change in traffic between the Preferred Alternative and No Action condition is on East Lake Sammamish Parkway, which is expected to see a decrease of 540 PM peak hour vehicles. In reviewing the model files, this change in volume is a combination of traffic redistributing to other routes and some traffic diverting through the Marymoor neighborhood to reach new destinations in this redevelopment area as well as light rail. However, the model may be overstating the degree to which people would shift away from this major arterial.

Overall, Redmond can meet its commitment to accommodate a reasonable share of regional growth with relatively modest changes to traffic in surrounding jurisdictions. This result reflects a future condition where people have more options to travel than driving a vehicle because of transit oriented development and a strong investment in expanding multimodal travel options in Redmond.

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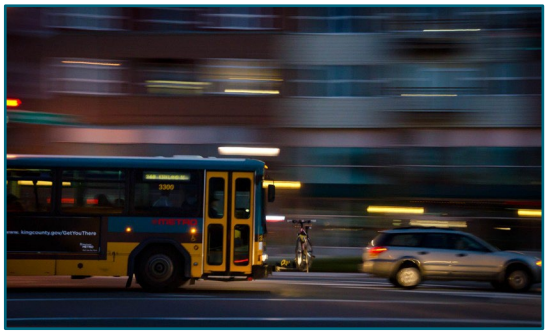
Appendix F

Travel Demand Management Strategies

Introduction

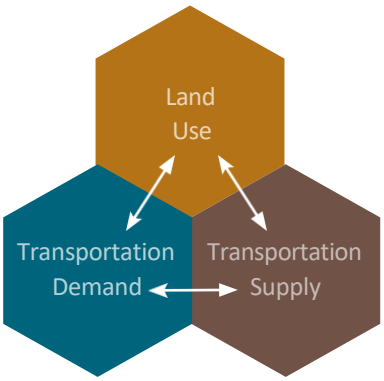


Realizing the City's vision will require an integrated, strategic approach to transportation that manages current and future transportation assets to maximize mobility, increase access, and support growth and development. The City, Redmond businesses, and the community have a strong track record of collaboratively using Transportation Demand Management (TDM) tools to expand mobility and access, improve travel choices, and support continued growth and development. The strategies and actions identified here focus on partnerships, coordinated policies, and innovative tools that leverage this past success, and chart a new direction, to support travel choices, mobility, economic vitality and the growth and development of Redmond's urban centers.

Strategic Approach to TDM

There are three major elements that are part of an integrated approach to transportation planning and implementation:

Transportation Demand Management (TDM) seeks to implement policies, programs, and strategies that proactively manage transportation demand to achieve a balance between Land Use, Demand, and Supply in support of the City's vision. Rather than a replacement for actions that address transportation supply and land use, TDM works in coordination with these actions to achieve the City's vision.



Transportation Demand
The travel needs of people, goods, and services

Land Use
The places people and goods travel to and from

Transportation Supply
The infrastructure used for travel

What is TDM?

Transportation Demand Management (TDM) includes strategies that change travel behavior (how, when, and where people travel) in order to increase transportation system efficiency and achieve specific objectives, such as improved mobility, road and parking cost savings, increased safety, energy conservation, and pollution emission reductions (Victoria Transport Policy Institute).

Redmond's approach focuses on tools, resources, programs, and partnerships that improve access and mobility to support economic growth and community character, and make alternative travel choices easier to use and access.

Historically, TDM has been used to manage and mitigate peak period congestion. A broader, more integrated approach to travel needs is necessary to support the City's vision. The City's approach to transportation is "systems-based," comprising a broad range of strategies, actions, and outcomes. This approach supports a well-functioning, holistic "transportation system" that supports the City's vision. Using programmatic elements will support a well-functioning system that, in the end, is much more than the sum of its parts. There are three main advantages to TDM that should be leveraged to support a successful transportation system:

Flexible: TDM measures can be adapted to meet a specific need, or for a unique audience or user group. The City regularly partners with local businesses and schools to develop TDM solutions that are tailored to achieve outcomes.

Fast: When compared with capital projects, TDM measures can be implemented quickly, with less lead time. Combined with flexibility, this allows TDM measures to be both timely and responsive to a community travel need.

Cost–effective: TDM measures can be scaled to meet the need in a cost–effective manner, and are typically less costly than physical infrastructure projects.

Implementing Innovative Tools to Support Growth and Vitality

The City has an integrated and successful TDM program that focuses on partnerships and collaboration with larger employers and providing outreach and resources to meet travel needs and address travel demand. This has greatly enhanced the person-carrying capacity of the City's transportation infrastructure. For example, the tools, resources, and mobility support provided by the City have resulted in increased efficiencies and effective person-carrying capacity equivalent to four freeway lanes of capacity. The City will continue to develop and implement innovative tools, in collaboration with the community, to help increase access and maximize the person–carrying capacity of our infrastructure.

Meeting a More Diverse Set of Travel Needs

As Redmond's centers develop and travel patterns shift due to hybrid work arrangements, it is important to address a broad range of travel needs throughout the day. Redmond will expand its approach to TDM to provide support to smaller employers and residents, as well as visitors and customers.

Making Redmond an Attractive Place to Locate and Grow

Cities compete to attract investment that creates and retains jobs. Successful TDM programs reduce transportation costs for new businesses and make workplaces more attractive, key to attracting skilled talent in today's economy. In support of Redmond's broader economic development

strategy, the City will continue to develop positive partnerships and programs with employers and property owners to support transit, carpool, vanpool, bicycle, and pedestrian travel options. This enables businesses to locate and grow in Redmond with fewer costs, allows more space to be dedicated to revenue-generating activities rather than parking, and improves employee and customer access.

Connecting Travelers with Travel Choices

A key theme throughout the Transportation Element is a desire from the community to be able to travel without a car — be it by bike, transit, walking, carpooling, or vanpooling. Knowledge on how to use these travel choices, and "start-up costs" can be significant barriers to trying these travel choices for the first time. Using transit requires not only knowing which transit routes to take, but also knowing when they come and go. Vanpooling and carpooling require finding a travel partner. For a new bicycle rider, finding safe and comfortable routes, and knowing how to deal with Pacific Northwest weather, can be challenging.

A major element of the City's TDM approach is providing information, tools, and resources to individual travelers, and to employers, schools, and other community groups, that help make a variety of travel choices more accessible, easier to understand, and, as a result, easier to use. This includes customized transit and bicycling route information, "ride-matching" tools that help travelers find a carpool or vanpool partner, as well as incentives and fare subsidies for new transit or vanpool riders that help defray the initial costs associated with trying a new mode of travel.

Leveraging New Technology

Every day, advances in technology create new opportunities to provide travelers with more accurate, relevant, and real-time information that make using alternative travel choices even easier. The City has been on the forefront of leveraging these technologies, and will continue to use technology to provide Redmond travelers with the information needed to make the travel choices they want.

Implementation Actions and Priorities

The following section outlines program elements, implementation actions, and new direction for TDM as part of the City's overall approach to transportation.

Develop Tools and Resources for Individual Travel Choices

The City provides creative resources, tools, and incentives for Redmond residents, employees, and businesses through an award-winning and nationally acclaimed TDM program, which is a public-private partnership between the City, local employers, King County Metro, and Move Redmond. Local businesses use this program to manage their own transportation programs, and offers nearly 32,000 employees and residents a one-stop place for resources, travel information, "starter" incentives for transit, vanpool, carpool, bicycling, and walking, and enables users to track and view the impact and benefits of their travel activities. These elements are instrumental in providing improved information, resources, and incentives that make travel choices, such as walking, biking, transit, carpooling, and vanpooling, more accessible and easier to use.

The City supports an entrepreneurial approach to TDM, with a focus on providing support and resources for local businesses and community organizations to develop innovative transportation solutions.

Continue to Implement and Adapt the City's TDM Program

Continuing to leverage TDM program tools to provide information, resources, incentives, and starter fare subsidies will assist the individual commuter starting or joining a vanpool, carpool, or using transit. Key areas for growth for this program are further integration with social media to help expand outreach, and leveraging interactive travel information tools that make alternative transportation choices easier to use, such as OneBusAway, which provides real-time transit arrival and departure information.

Develop Innovative Outreach Materials and Events

The City collaborates with community groups to develop innovative travel information materials, such as Redmond's Bicycling Guide and Transit Map, as well as custom materials for employers, schools, and community groups, to help meet and support travel needs. Through the City's TDM program, the City also actively engages with employers, employees, and the community at transportation events hosted throughout Redmond. The City should take advantage and seek additional opportunities to utilize technology investments to improve processes, such as streamline electronic distribution of commute and travel information through online and social media channels.

Provide Transportation Assistance and Resources for Redmond Businesses and Organizations

A key element of Redmond's TDM program is providing tools, resources, and support to businesses and community organizations to develop innovative transportation programs and solutions. The City provides innovative online management tools that are used by employers and community groups to manage their own transportation programs. This makes the City's investments more effective by leveraging and combining resources, promotes more efficient and entrepreneurial use of transportation resources, and reinforces Redmond as a positive place to do business.

Enhance Online Tools and Management Features to Support Business and Community Travel Programs

The City should continue to develop and improve the online management tools provided through its TDM program. Areas for growth include adapting existing tools to better accommodate residential- and school-based travel programs, and supporting the implementation for groups of smaller employers, for example, at business parks.

Implement TDM Program Grants to Meet Community Travel Needs

The City's TDM grant program provides seed funding for new or enhanced commute programs through a grant application process. The City should continue to implement this grant program to meet employer and community travel needs, and should leverage opportunities to coordinate with other City programs and goals, such as grant opportunities for public parking in downtown.

Streamline Regulation in Support of the City's Vision

All new major commercial developments in Redmond are required to implement Transportation Management Programs as a condition of development. In addition, large employers are required to implement the Washington State's Commute Trip Reduction (CTR) program. Both programs support the development of tools and resources for alternative travel choices at individual employment and development sites in Redmond. These programs help support the City's mode split goals, as well as Washington State's Environmental Policy and Growth Management Acts.

Support and Enable Innovative Private Sector-Based Solutions

The role of the City acting as a "guide" versus a "regulator" is key to collaborative problem solving. In support of this approach, the CTR and Transportation Demand Management programs should continue to be implemented in collaboration with employers and property owners to develop innovative solutions that are effective at supporting transportation needs, as well as effective at meeting program goals. Flexibility and innovation in achieving desired outcomes should be encouraged, and data and ongoing performance measurement should be used to monitor progress and guide future actions.

Develop Tools to Support Successful Outcomes

Many of the tools provided by the City are actively used by employers and property owners to support successful on-site TDM programs. The City should continue to develop and enhance these tools to provide collaborative, business-supportive resources that successfully streamline implementation of both the State Commute Trip Reduction Program and the City's Transportation Demand Management Program.

Commute Trip Reduction (CTR) Law

The Washington State Legislature adopted the Commute Trip Reduction law in 1991, incorporating it into the Washington Clean Air Act. This law affects larger employers (>100 employees arriving during the a.m. peak period) in the state's most populated counties. The goals of the program are to reduce traffic congestion, reduce air pollution, and petroleum consumption through employer-based programs that decrease the number of commute trips made by commuters driving alone.

Mobility Management Programs

Since the mid-1980s, all new major commercial developments in Redmond have been required as a condition of development to implement transportation management programs. The goal of these programs is to achieve a 70 percent or lower rate of commuting by single occupant vehicles. Elements of these programs include on-site information and resources for alternative travel choices, designated carpool and vanpool parking spaces, and ongoing monitoring and measurement of program success.

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Coordinate Planning and Implementation to Support Neighborhood-Based Outcomes

A holistic, coordinated approach will be critical to achieve Redmond's vision for its centers. The City is taking a deliberate approach that coordinates economic development, transportation, and growth, and leverages regional, state, and federal grant matching opportunities that support more efficient focused development within centers.

Coordinate and Support the City's Parking Strategies

As the City continues to grow and mature, managing the use of both on-street and off-street parking, supply will become increasingly important to maintain and increase access to businesses and services. The City should facilitate and support property owner and employer efforts to manage their available parking to balance competing needs (e.g., between employees and customers). New tools and solutions should be developed to address emerging issues, including parking management and parking spillover mitigation.

Implement TDM Tools in Coordination with Major Construction Projects

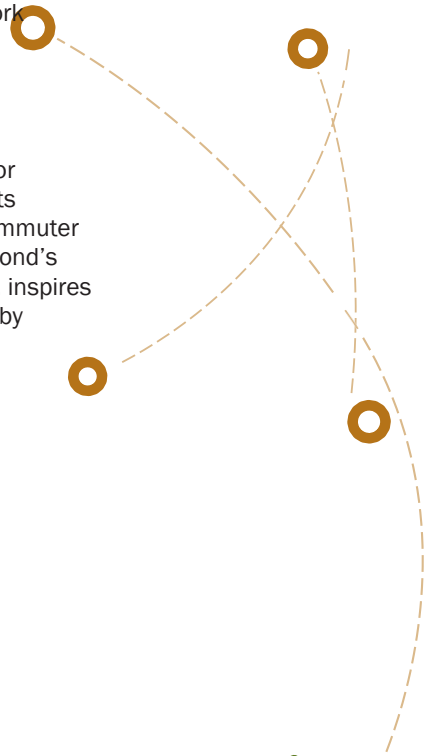
When significant transportation construction affects travel to, from, or within Redmond, such as major road closures, or construction on major highways or freeways, information about and incentives for alternative travel choices should be made available.

Leverage the City's Economic Development Potential

Redmond is a major employment destination, and its daytime population far exceeds its residential population. As part of a broader economic development strategy, there is an important opportunity to coordinate TDM actions and outreach efforts to leverage the economic activity of Redmond's work force, and make Redmond a great place to live, work, and play.

Support Local Businesses

Encourage reinvestment back into the local economy by promoting Redmond as a destination for customers, and supporting customer access by walking, bicycling, carpooling, or transit. Elements include incorporating incentives that support local businesses as part of the TDM program's commuter rewards outreach, and coordinating with cultural events and arts programs that enhance Redmond's identity as a destination. Supporting local businesses enhances Redmond's image and identity, inspires customer loyalty, and helps make biking, walking, and transit use viable for non-commute trips by actively supporting travel choices.



Appendix G: Transportation Facilities Plan with Financing Plan (System Needs)

Introduction

The Transportation Facilities Plan (TFP) is the long-range financially constrained portion of the Buildout Plan. The Buildout Plan contains all the capital needs identified to provide a complete and well-maintained transportation system for the City of Redmond well into the future. The TFP has been prioritized to best meet the transportation vision in support of the 2050 land use plan. This 29-year Transportation Facilities Plan is financially constrained by the revenue forecast for that same time period consistent with the Washington State Growth Management Act.

This appendix describes three elements essential to the formation of the TFP: its relationship to the Buildout Plan, the revenue forecast, and a strategically prioritized list of specific capital improvements and programs.

The Buildout Plan

The Buildout Plan is an ambitious list of important multimodal improvements needed to address gaps and issues in the current transportation system. Adoption of the completed Buildout Plan will be included in the Transportation Master Plan update. The full implementation of the Buildout Plan over time is expected to be a partnership among all stakeholders of the transportation system in Redmond, including neighboring jurisdictions, private developers, businesses, residents, and granting agencies.

The Buildout Plan, Transportation Facilities Plan, and Three-Year Action Plan

The priority portion of the Buildout Plan is the 29-Year Transportation Facilities Plan (TFP), a funding-constrained plan guiding transportation investment between 2022 and 2050. These priority projects and programs are the City's commitment to transportation improvements needed to keep pace with growth, complete system deficiencies, and provide for essential operations and capital maintenance needs.

Revenue Sources and Forecast

Process to Develop the 2022-2050 Revenue Forecast

Each revenue source has been forecasted through 2050. The forecast makes assumptions about basic considerations, such as the state of the economy, and whether the City would continue to devote that revenue source to transportation.

The first six years of the TFP revenue forecast are derived from the revenue projections in the 2023-2028 Capital Investment Program (CIP). The remaining years (2029-2050) are calculated based on a flat rate (does not include inflation) to match the project cost estimates.

Project cost inflation in outer years (2029-2050) can be estimated only if the City knows exactly what year each project would be initiated. While this is known for the Capital Investment Program (CIP), it is not known for the entire 29-year period.

Overview of Revenue Sources and Assumptions

The City's transportation investments are supported by a variety of revenue sources that include:

- **City taxes and fees –** General funds from property and sales taxes, Business Transportation Tax, transportation impact fees, etc.
- **Funds from other governmental agencies –** Grants from state and federal transportation agencies, cost participation by other cities in Redmond projects, and transfers of funds pursuant to agreements, such as the BROTS agreement with Bellevue.
- **Developer payments –** Funds provided by developers to ensure access and mitigate site-related transportation impacts.
- **Miscellaneous –** Interest earnings, carry-forward fund balances associated with projects initiated in prior years, intergovernmental transfers, and other funds.

TFP revenue forecast 2022-2050

Revenue Source	Forecast ($M) 2022-2050	Percent	Description of Source
General Fund Transfer	60.26	6.8%	Council appropriation from City general fund
Pavement Management General Fund	8.70	1.0%	Council appropriation from City general fund
Real Estate Excise Tax	62.78	7.1%	Tax on property sales in Redmond
Motor Vehicle Excise Tax	16.06	1.8%	State transportation funds to Redmond
Other Jurisdictions	2.93	0.3%	Cost participation by other agencies in Redmond projects
Federal and State Grants	103.92	11.7%	Cost participation grants for specific projects
Business Tax	139.24	15.7%	Employment based tax - Redmond employers
Impact Fees	243.20	27.4%	Transportation impact fee cash payments by developers; or construction value by developers
Developer Contributions	63.2	7.1%	Value of developer payments or construction for specific projects; not impact fee credited

Miscellaneous Sources	14.6	1.6%	Interest earnings, rent, surplus property, revenue for completed projects for concurrency
Miscellaneous Carryovers	24.37	2.7%	Funds brought forward; net of debt payments, non-tfp projects and overhead
Transportation Benefit District	148.50	16.7%	City Council adopted an ordinance to form a Transportation Benefits District
Total	887.75	100.0%	

Overview of Forecast and Growth Assumptions – 2022-2050

Forecast Assumptions

- Flat to moderate growth in revenues.
- No increases to tax or fee rates or new sources of revenue.
- Revenues and project costs also include the portion of CIP-funded projects that have occurred prior to 2022 and are continuing into the 2023-2028 time frame.
- Debt obligations are paid from existing revenues.

Growth Assumptions

- Impact fees and developer contributions account for 35 percent of the TFP revenues.
- Pipeline projects are either underway or have concurrency through a development agreement.
- Transportation impact fees paid by developer are a blend of built projects (developers receive impact fee credits when constructing an impact fee eligible project) and cash towards TFP projects.
- Developer contributions are the portion of developer-built projects that exceed the limit of impact fee credits.

Development of the Transportation Facilities Plan (TFP)

The Transportation Facilities Plan is part of the overall City of Redmond Capital Investment Strategy (CIS) or "Vision Blueprint," which is a comprehensive listing of all public infrastructure projects needed and funded through 2050. Transportation is the largest of the individually funded capital plans and integral to coordinating with the other capital projects within the city, particularly with utility projects, stormwater improvements, and parks and trails. Transportation tends to provide a framework for how to consider the design and timing of many other City capital projects so all of the City infrastructure can be integrally designed and provided most efficiently.

Projects and Programs

TFP capital investments are arranged into two types: projects and programs. Projects and programs have distinct characteristics, and they are designed to complement each other.

Stability of Revenue Sources:

- Gas tax revenue is based on consumption; gasoline tax revenues will decrease as drivers change to other modes of travel and shift to electric vehicles.
- REET is tied to the economy and local real estate market.
- General Fund is tied to economy plus City policy. In addition, in order to fund maintenance and operations on already built transportation infrastructure, the amount of General Fund revenue available for new transportation projects may decrease over time.
- Grant awards are sought in a highly competitive market for both federal and state grants and are tied to the availability of funding.
- Developer contributions have decreased due to plan-based concurrency system and are difficult to forecast in the outer years.

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
10	SR 520 Trail Grade Separation at NE 51st St	Overlake	520 Trail		Grade separate the 520 Trail at NE 51st Street.	Other	System Improvement (City)	$7,634,621
31	148th Ave NE and NE 51st St Right Turn Lanes	Overlake	520 Trail	148th Ave NE	Add a second right turn lane from westbound NE 51st Street to Northbound 148th Avenue NE.	Intersection improvement - signals	System Improvement (Dev)	$2,705,850
46	150th Ave NE & NE 51st St Signal	Overlake	NE 51st St		Add north leg to intersection of 150th Ave and 51st St and signalize this intersection.	Intersection improvement - signals	System Improvement (Dev)	$2,445,607
47	152nd Ave NE Main Street	Overlake	2600 Block	NE 31st St	Implement 152nd Avenue NE main street from NE 24th Street to 2600 Crossing to create a lively and active signature street in the Overlake Village. The cross section for the improvements would include 1 through lane in each direction, turn lanes as necessary, on-street parking and pedestrian and bicycle facilities. Other improvements include storm drainage, LID, street lighting, pedestrian amenities, transit amenities, right-of-way, easements, and utilities	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$7,100,000
47.01	152nd Ave NE Main Street North	Overlake	24th St	31st St	Implement 152nd Avenue NE main street from 2600 Crossing to Plaza Street / DaVinci to create a lively and active signature street in the Overlake Village. The cross section for the improvements would include 1 through lane in each direction, turn lanes as necessary, on-street parking and pedestrian and bicycle facilities. Other improvements include storm drainage, LID, street lighting, pedestrian amenities, transit amenities, right-of-way, easements, and utilities	Half street	System Improvement (Dev)	$15,729,868
49	152nd Ave NE Main Street South of 24th	Overlake	NE 24th	NE 20th St	Implement a multi-modal pedestrian corridor concept on 152nd Avenue NE from NE 20th Street to NE 24st Street to create a lively and active signature street in the Overlake Village consistent with the Overlake Village Street Design Guidelines. The cross section for the improvements would include 1 through lane in each direction, turn lanes as necessary, on-street parking and pedestrian and bicycle facilities. Other improvements include storm drainage, LID, street lighting, pedestrian amenities, transit amenities, right-of-way, easements, and utilities	Full street	System Improvement (Dev)	$39,169,343
50	156th Ave NE & Bel-Red Rd Turn Lane	Overlake	156th Ave NE		Add southbound right-turn lane.	Intersection improvement - signals	System Improvement (Dev)	$2,400,000

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
51.01	156th Ave NE Shared Use Path	Overlake	NE 40th St	NE 51st St	Construct shared use path on the east side of 156th Avenue from 40th Street to 51st Street	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$9,306,150
56.01	NE 40th St Shared Use Path - West	Overlake	148th Ave NE	SR 520	Shared use path on the south side of 40th Street from 148th Avenue to the 520 Trail	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$9,483,555
62.01	NE 40th St Improvements	Overlake	163rd Ave NE	172nd Ave	Add paved trail on south side of 40th Street from 163rd Avenue to West Lake Sammamish Parkway	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$5,201,700
66.01	51st St Shared Use Path	Overlake	148th Ave	SR 520	Provide multi-use trail on north side of NE 51st St between 148th Ave NE and SR 520.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$2,735,250
72	140th Ave NE and Redmond Wy Turn Lanes	Grass Lawn	NE 80th St	Redmond Way	Add second northbound left turn lane and extend bicycle lanes from 80th Street through the intersection of 140th Ave and Redmond Way.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$361,453
75	NE 116th St Widening Segment II	North Redmond	167th PL	179th PL	Widen NE 116th St from 176th Ave to 178th Ave NE. Improvements include 1 through lane in each direction, left turn lanes, bike lanes, curb, gutter, sidewalks, equestrian trail, street lights, storm drainage, underground power, right-of-way and easement acquisition.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$9,673,162
77	NE 116th St Segment III	North Redmond	179th PL	Avondale Rd	NE 116th St Segment III. Location: NE 116th Street (East End) from 179th Avenue NE to Avondale Rd. Description: Widen remaining sections of NE 116th St from 179th Avenue to Avondale Road. Improvements include 1 through lane in each direction, left turn lanes, bike lanes, curb, gutter, sidewalks, street lights, storm drainage, underground power, right-of-way and easement acquisition.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$20,702,850
88	NE 76th St Widening 520 to 178th Pl	SE Redmond	EB 520 Ramp	178th Pl NE	widen roadway to include three 12' travel lanes and two bike lanes and 6' sidewalks, realign roadway to comply with COR minimum horizontal curve radius requirement. At the signalized intersection of Fred Meyer and Target, add crosswalk to west leg, use existing right run drop lane eastbound, re-aligned to account for roadway widening. At intersection of 76th and eastbound 520 ramps add a crosswalk enabling pedestrian and bicycle crossing. Improve transit amenities.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$5,574,000

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
89	76th St & 178th Pl Intersection Improvements	SE Redmond	178th Pl NE		Improve the intersection by accommodating WB-67 trucks for all movements, adding northbound and southbound right turn only lanes, completing bike lanes, widening sidewalks to 6' wide, and better sight lines.	Intersection improvement - signals	System Improvement (Dev)	$6,758,359
90	NE 76th St Widening	SE Redmond	178th Pl NE	185th Ave NE	Widen roadway to include a 12' center turn lane, two 12' travel lanes and two 5.5' bike lanes and 6' sidewalks on both sides of roadway.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$3,150,000
111	124th St and 162nd Pl Intersection Improvements	North Redmond	162nd Pl NE		Construct intersection improvements at 124th Ave NE and 162nd Pl NE. Includes the addition of turn lanes on NE 124th and modifications on 162nd Pl for sight distance as well as intersection control. Coordination with King County Roads as project is outside City limits.	Intersection improvement - signals	System Improvement (Dev)	$4,489,800
113	192nd Ave NE Extension	SE Redmond	NE 68th St	Union Hill Rd	Construct new 192nd Ave NE from NE 68th St to Union Hill Rd. Improvements include 1 through lane in each direction, left turn lanes, bike lanes, sidewalks, street lights, traffic control, storm drainage, right-of-way and easements.	Full street	System Improvement (Dev)	$38,072,000
119	Avondale Way Extension	Downtown	Redmond Way	NE 76th St	Construct a new north/south non-motorized connection between Redmond Way and NE 76th Street. Needed cost estimate review.	Full street	System Improvement (Dev-City)	$36,442,004
156	Willows Rd Widening	Sammamish Valley	NE 116th St	NE 124th St	Widen Willows Road from NE 116th St to NE 124th St. Improvements include 2 through lanes in each direction, left turn lanes, bike lanes, curb, gutter, sidewalks, transit amenities, street lights, storm drainage, underground power, right-of-way and easement acquisition.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$22,006,950
170	158th Ave NE Extension	Downtown	Redmond Way	NE 83rd St	Construct new 159th Ave NE from Redmond Way to NE 83rd St. Improvements include 1 through lane in each direction, parking, sidewalks, street lights, pedestrian amenities, transit stop amenities, storm drainage, right-of-way and easements.	Full street	System Improvement (Dev-City)	$10,469,000
172	150th Ave NE Bicycle Lane Completion	Overlake	NE 51st St	NE 40th St	Fill in gaps in bicycle facility network on 150th Avenue NE from NE 51st Street to NE 40th Street in both directions, and improve curve radius to allow for truck movements through existing chokepoint. Widen roadway to west and build retaining walls.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$16,583,635
201	Redmond Central Connector Phase 3	Sammamish Valley			12 foot regional trail from the Redmond Central Connector Phase II to 124th Street	Multi-use Path	System Improvement (City)	$4,245,000
288	151st Ave NE South-DaVinci	Overlake	NE 20th St	NE 24th St	Construct new 151st Avenue NE between NE 20th Street and NE 24th Street. Refer to the Overlake Neighborhood Plan for more details. Coordinate with the Overlake Village South Study.	Full street	System Improvement (Dev)	$9,000,000

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
289	NE 22nd St, West	Overlake	148th Ave NE	152nd Ave NE	Construct new NE 22nd Street from 148th Avenue NE to 152nd Avenue NE and design the street as a local access street using pedestrian supportive design with on-street parking and one through lane in each direction. Major street connections would be signalized. Coordinate with Overlake South Plan.	Full street	System Improvement (Dev)	$19,000,000
290	NE 22nd St, East	Overlake	152nd Ave NE	Bel-Red Rd	Construct new NE 22nd Street from 152nd Avenue NE to Bel-Red Road and design the street as a local access street using pedestrian supportive design with on-street parking and one through lane in each direction. Major street connections would be signalized. Coordinate with Overlake South Plan.	Full street	System Improvement (Dev)	$7,500,000
310	Lumiere - NE 24th to NE 26th	Overlake	NE 24th St	Hopper St	Construct Lumiere Access Street from 24th Street to Hopper Street in accordance with Overlake Village Design Standards, including 1 travel lane, parking lane and sidewalk in each direction.	Full street	System Improvement (Dev)	$12,098,000
311	DaVinci - NE 27th to NE 28th	Overlake	Hopper St	Shen St	Construct DaVinci neighborhood street from Turing Street to Shen Street in accordance with Overlake Village Design Standards, including 1 travel lane,parking lane, cycle track, and sidewalk in each direction as well as an urban pathway trail.	Full street	System Improvement (Dev)	$8,867,000
312	DaVinci - NE 24th to NE 26th	Overlake	NE 24th St	Hopper St	Construct DaVinci neighborhood street from 24th Street to Hopper Street in accordance with Overlake Village Design Standards, including 1 travel lane,parking lane, cycle track, and sidewalk in each direction as well as an urban pathway trail.	Full street	System Improvement (Dev)	$20,393,000
313	Hopper Street	Overlake	152nd Ave NE	DaVinci	Construct Hopper Street Access Street from DaVinci to 152nd Ave in accordance with Overlake Design Standards, including 1 travel lane, parking lane and sidewalk in each direction.	Full street	Local Street Network 2050	$17,906,000
314	Turing Street	Overlake	NE 27th St	152nd Ave NE	Construct Access Street in accordance with Overlake Village Design Standards, including 1 travel lane, parking lane and sidewalk in each direction.	Full Street	System Improvement (Dev)	$31,593,902
315	Shen Street	Overlake	Hopper St	152nd Ave NE	Partial completion by the Overlake Access Ramp project. Cost estimate review needed.	Full Street	System Improvement (Dev)	$28,998,333
339	NE 95 St. Bridge Replacement	Bear Creek	NE 95th St		NE 95th Street Bridge Replacement	Other	System Improvement (City)	$884,000
360	NE 70th Street Extension Phase 2 Construction	SE Redmond	Redmond Way	180th Ave NE	Construct a new street connection up to City standards on NE 70th Street between 180th Avenue NE and Redmond Way	Full street	System Improvement (Dev)	$2,500,000
361.01	Sammamish River Trail Extension from 51st Street to Bel-Red Road	Overlake			Extend Sammamish River Trail at east side of West Lake Sammamish Parkway from 51st Street to Bel-Red Road	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$19,804,808

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

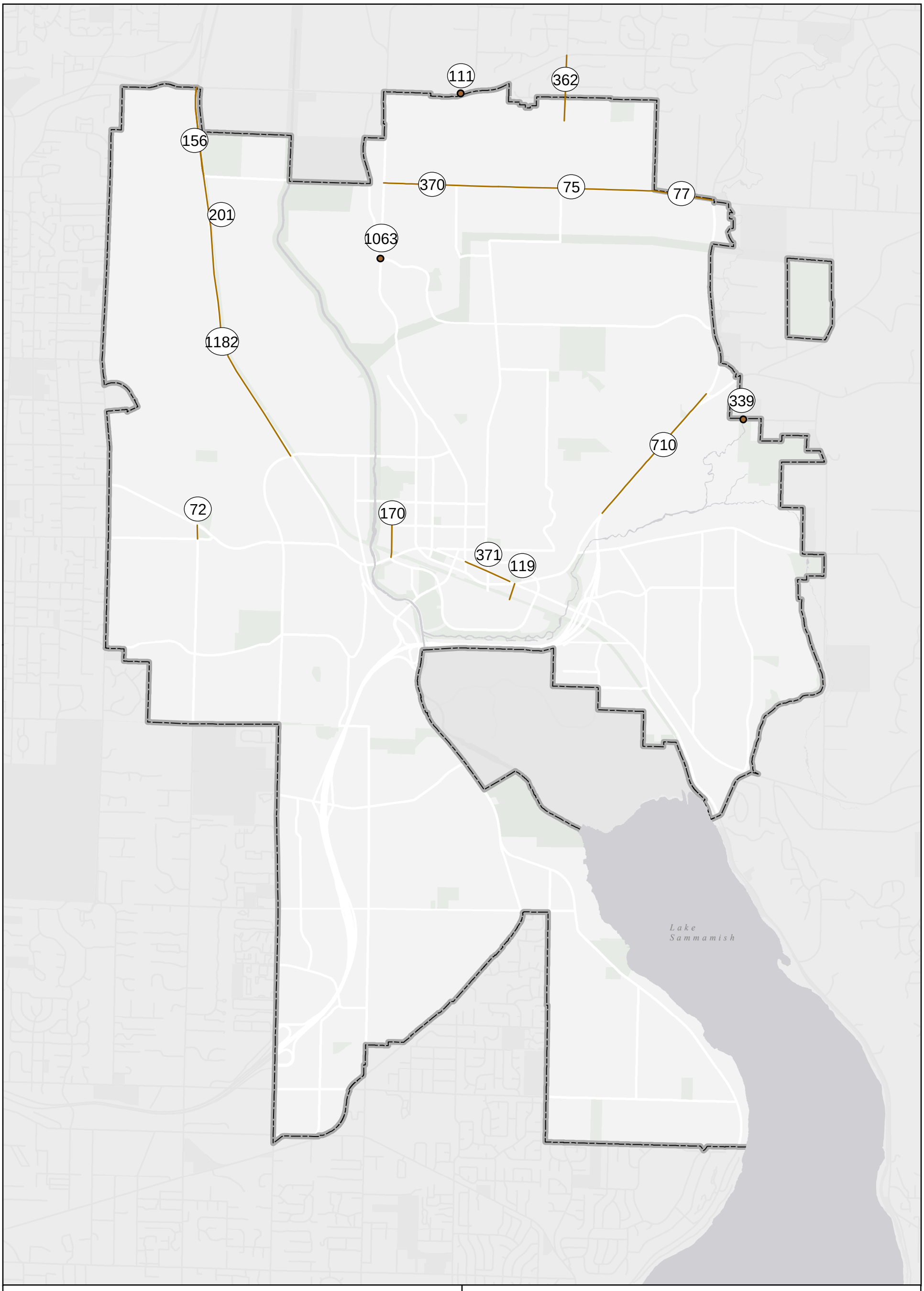
ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
362	172nd Ave NE Extension	North Redmond	NE 124th St	NE 128th St	172nd Ave NE gate opening at NE 124th St and traffic calming improvements	Other	System Improvement (City)	$1,340,000
364	NE 76th Street Extension (Segment 2)	SE Redmond	188th Ave NE	192nd Ave NE	Construct new NE 76th St from 188th Ave NE to 192nd Ave NE. Improvements include 1 through lane in each direction, left turn lanes or medians to create a 3 lane section, bike lanes, sidewalks, street lights, traffic control, storm drainage, right-of-way and easements. Consider roundabout at 185th Ave and 76th St.	Full street	System Improvement (Dev)	$16,278,000
366.01	156th Ave NE Two-Way Cycletrack	Overlake	Bel-Red Road	NE 40th St.	Construct two-way cycle track on the east side of 156th Avenue from 28th Street to 40th Street	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev-City)	$7,695,059
370	NE 116th St Widening Segment I, Phase II	North Redmond	Red-Wood Rd	167th Pl NE	Complete NE 116th St from Red-Wood Road to 167th Place NE. Improvements include one through lane in each direction, left turn lanes, bike lanes, curb, gutter, sidewalks, equestrian trail, street lights, storm drainage, underground power, right-of-way, and easement acquisition. Improvements coordinate with project # 356: the construction of a roundabout at NE 116th Street and 162nd Avenue NE.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$6,220,000
371	Redmond Way Widening	Downtown	168th Ave NE	164th Ave NE	Add second westbound lane and parking on the north side of Redmond Way between 168th Avenue and 166th Avenue. Project would include one travel lane, on-street parking, sidewalk, right-of-way, utilities and streetscape improvements	Other	System Improvement (Dev-City)	$12,008,433
378	173rd Ave NE Connection	SE Redmond	NE 67th St	NE 70th St	Construct collector arterial (see RZC Appendix 8A).	Full street	System Improvement (Dev)	$23,220,800
382	176th Ave NE Retrofit- LW Tech Segment	SE Redmond		NE 65th St	Widen Roadway Per Appendix 8A	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$4,383,000
384	NE 65th St Retrofit	SE Redmond	Marymoor Park boundary	East Lake Sammamish Parkway	Retrofit collector arterial (see RZC Appendix 8A)	Full street	System Improvement (Dev)	$22,653,390
386	NE 67th St Retrofit	SE Redmond	173rd Ave NE	176th Ave NE	Retrofit collector arterial (see RZC Appendix 8A)	Full street	System Improvement (Dev)	$23,697,742
387.01	148th Corridor from NE 20th to SR520	Overlake	Bel-Red Road	EB SR 520 on-ramp	Add northbound through lane on 148th Ave NE between Bel-Red Road and the eastbound SR 520 on ramp	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$14,372,626

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
389	West Lake Sammamish Parkway Roundabout	Overlake	Vest Lake Sammamish Parkway		Construct a roundabout at West Lake Sammamish Parkway and Bel-Red Road	Intersection improvement - no signals	System Improvement (Dev)	$8,720,843
392	NE 70th St Retrofit	SE Redmond	173rd Ave NE	Redmond Way	Construct collector arterial street (see RZC Appendix 8A). North half of street to be completed as part of DRLE	Full street	System Improvement (Dev)	$11,936,272
396	176th Ave from 70 to Red Way	SE Redmond	NE 70th St	Redmond Way	Construct connector street with right-in, right-out access at Redmond Way to function as a third entrance to the subarea.	Full street	System Improvement (Dev)	$9,587,340
404	176th Ave NE Retrofit-67th Segment	SE Redmond	MId Segment	LW Segment	Widen Roadway Per Appendix 8A	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$5,327,564
405	176th Ave NE Retrofit-Middle Segment	SE Redmond	NE 65th St	NE 70th St	Widen Roadway Per Appendix 8A	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$4,043,493
406	176th Ave NE Retrofit-North Segment	SE Redmond		NE 70th St	Widen Roadway Per Appendix 8A	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (Dev)	$5,589,000
502	24th St Multimodal Imp from 148 to Bel-Red	Overlake	148th Ave NE	Bel-Red Rd	Add new cycle tracks and sidewalks to 24th Street between 148th Avenue and Bel-Red Road, see Overlake South Plan.	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$8,667,000
710	Avondale Road School Bus Pull Outs	Bear Creek			Install school bus pullouts on Avondale Road including at Novelty Hill Road , NE 95th St, 188th, Ave NE/182nd Ave NE, 180th Ave NE, and NE 90th St.	Other	System Improvement (City)	$2,623,000
1063	RedWood Rd and NE 109th St Improvements	Education Hill	Red-Wood Rd		North-Souths Corridors Study	Intersection improvement - signals	System Improvement (City)	$1,140,000
1150	Lumiere Ave	Overlake	NE 20th St	NE 24th St	Lumiere Ave from NE 20th St to NE 24th St	Full street	System Improvement (Dev)	$28,504,473
1151	NE Koll Drive	Overlake	152nd Ave NE	DaVinci	NE Koll Drive (2100 block) from Da Vinci Ave to 152nd Ave - private street but publicly accessible	Roadway capacity (corridor widening for bike or vehicle lane)	Local Street Network 2050	$3,193,943
1166	70th Street Cycle Track	SE Redmond	SR 202	180th Avenue	One way cycle track built by development by shifting curb line south. Part of comfortable bike system connecting Marymoor Station to SE Redmond.	Full Street	System Improvement (Dev)	$3,093,464

2024-2050 Transportation Facilities Plan (TFP) - DRAFT

ID	Name	Neighborhood	Street_From	Street_To	Description	Project_Type	Draft_TFP	Estimate
1182	Willows North Bus Lane	Willows-Rose Hill	90th Street	124th Street	Add northbound bus only or HOV only lane. Replaces one general purpose lane south of 9900 Block and replaces bike lanes from 9900 Block to 124th Street - cannot remove bike lanes until Redmond Central Connector complete providing new, more comfortable bike facility	Other	System Improvement (City)	$1,403,910
1192	40th Street Shared Path, East	Overlake	163rd Avenue	West Lake Sammamish Parkway	Shared path on the south side of 40th Street with segments of cycle track where appropriate	Roadway capacity (corridor widening for bike or vehicle lane)	System Improvement (City)	$7,106,922
3112	Brill Street	Overlake	DaVinci	152nd Ave NE	Non-Motorized vehicle and Fire Access between DaVinci and 152nd Ave NE	Roadway capacity (corridor widening for bike or vehicle lane)	Local Street Network (Dev)	$1,737,540
3113	Bridge Structure and Repair Program	Citywide	Citywide		Started in 2001, bridge inspections and to coordinate maintenance and repair	Program	System Improvement (City)	$3,900,000
3114	Street Channelization Improvement and Maintenance Program	Citywide	Citywide		Replace worn pavement markings and signs for compliance; install new/innovative pavement markings and signs for channelization changes and safety concerns	Program	System Improvement (City)	$3,250,000
3115	Transportation Benefit District Implementation	Citywide	Citywide		Transportation improvements to be funded by the Transportation District	Program	System Improvement (City)	$143,000,000
3116	Street Lighting Program	Citywide	Citywide		Install new street lights and/or upgrade existing to LED at key locations where additional illumination would benefit safety and user accessibility.	Program	System Improvement (City)	$1,950,000
3117	Transportation Demand Management	Citywide	Citywide		Started in 1997	Program	System Improvement (City)	$2,210,000
3118	Traffic Safety Improvements	Citywide	Citywide		Targeted Safety Improvement Projects for safe, protected crossings	Program	System Improvement (City)	$2,600,000



2024-2050 Transportation Facilites Plan

City of Redmond, Washington

Redmond
WASHINGTON

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N

Transportation Facilites Plan Project (Line)

Transportation Facilities Project (Point)

City Limit

Neighborhood

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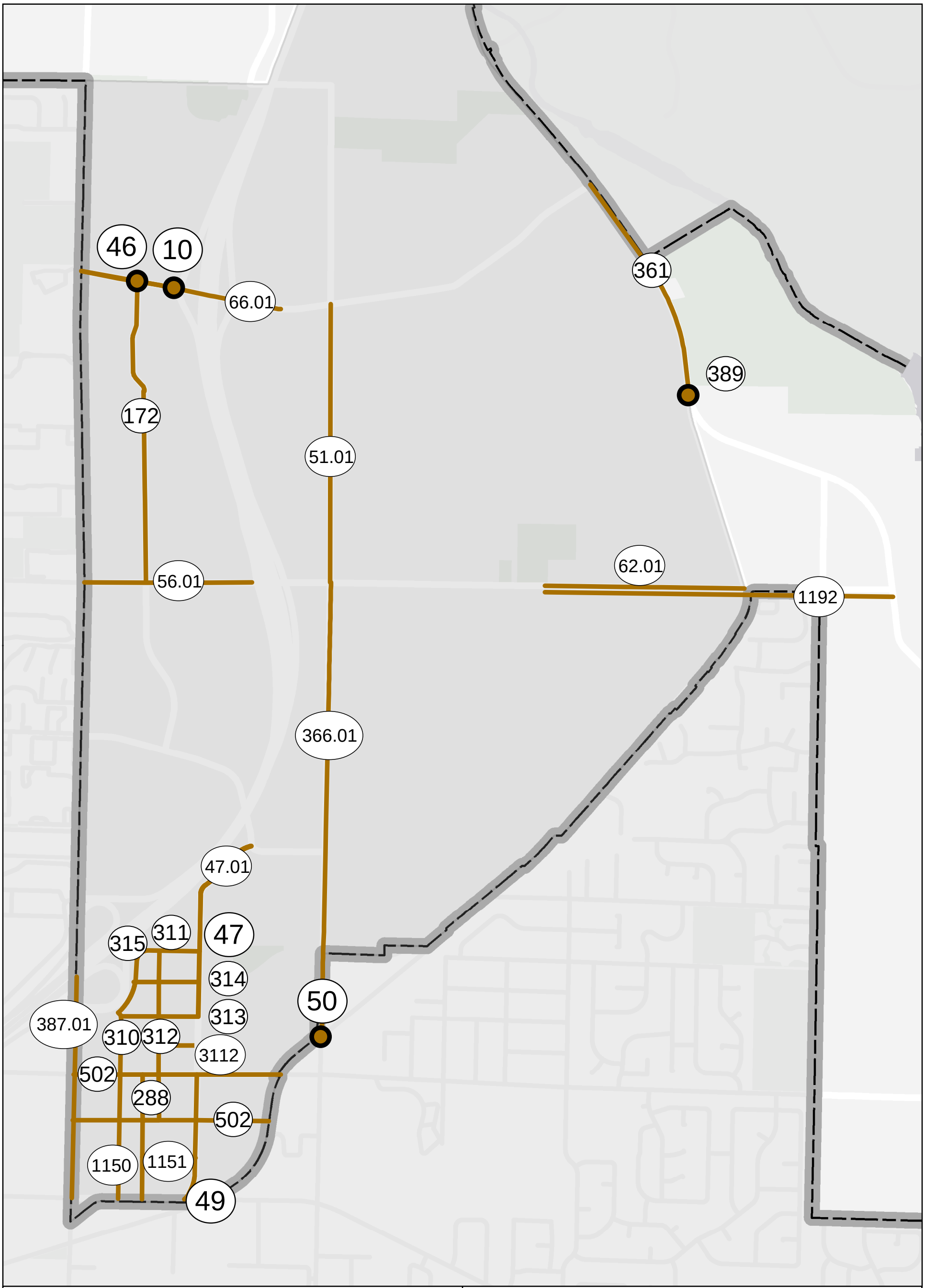

2024-2050 Transportation Facilites Plan

City of Redmond, Washington

Redmond
WASHINGTON

0 0.15 0.3
Miles

N

Transportation Facilites Plan Project (Line)

Transportation Facilities Project (Point)

City Limit

Neighborhood

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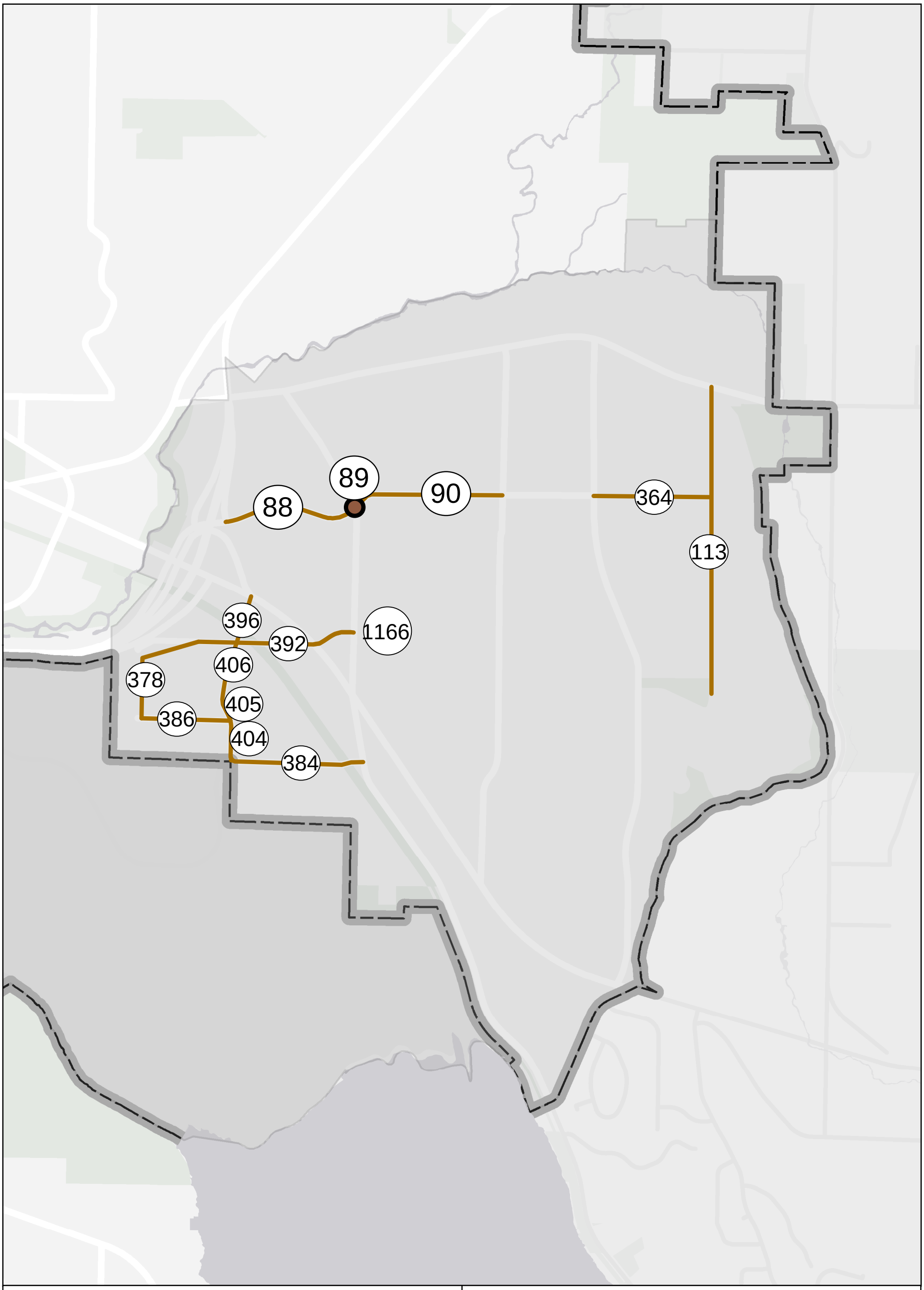

2024-2050 Transportation Facilites Plan

City of Redmond, Washington

Redmond
WASHINGTON

0 0.15 0.3
Miles

N

Transportation Facilites Plan Project (Line)

Transportation Facilities Project (Point)

City Limit

Neighborhood

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Appendix H – Transit and Active Transportation Networks

Introduction

This appendix describes in more detail how Redmond's policy objectives for transit and active transportation networks will be achieved.

Transit System

Since the mid-20th century, urban transit systems have served suburban areas chiefly with peak-hour express service to city centers, together with low-frequency local routes. Prioritizing suburban residents working office jobs in city centers excluded not only large swaths of workers on non-traditional shifts but also people making non-commute trips, which make-up the vast majority of trips. The COVID-19 pandemic laid this bare, as ridership on peak-hour express service plunged while routes serving transit-dependent essential workers held their own. Routes dependent on office dwellers continue to struggle while all-day, frequent routes that serve multiple purposes thrive.

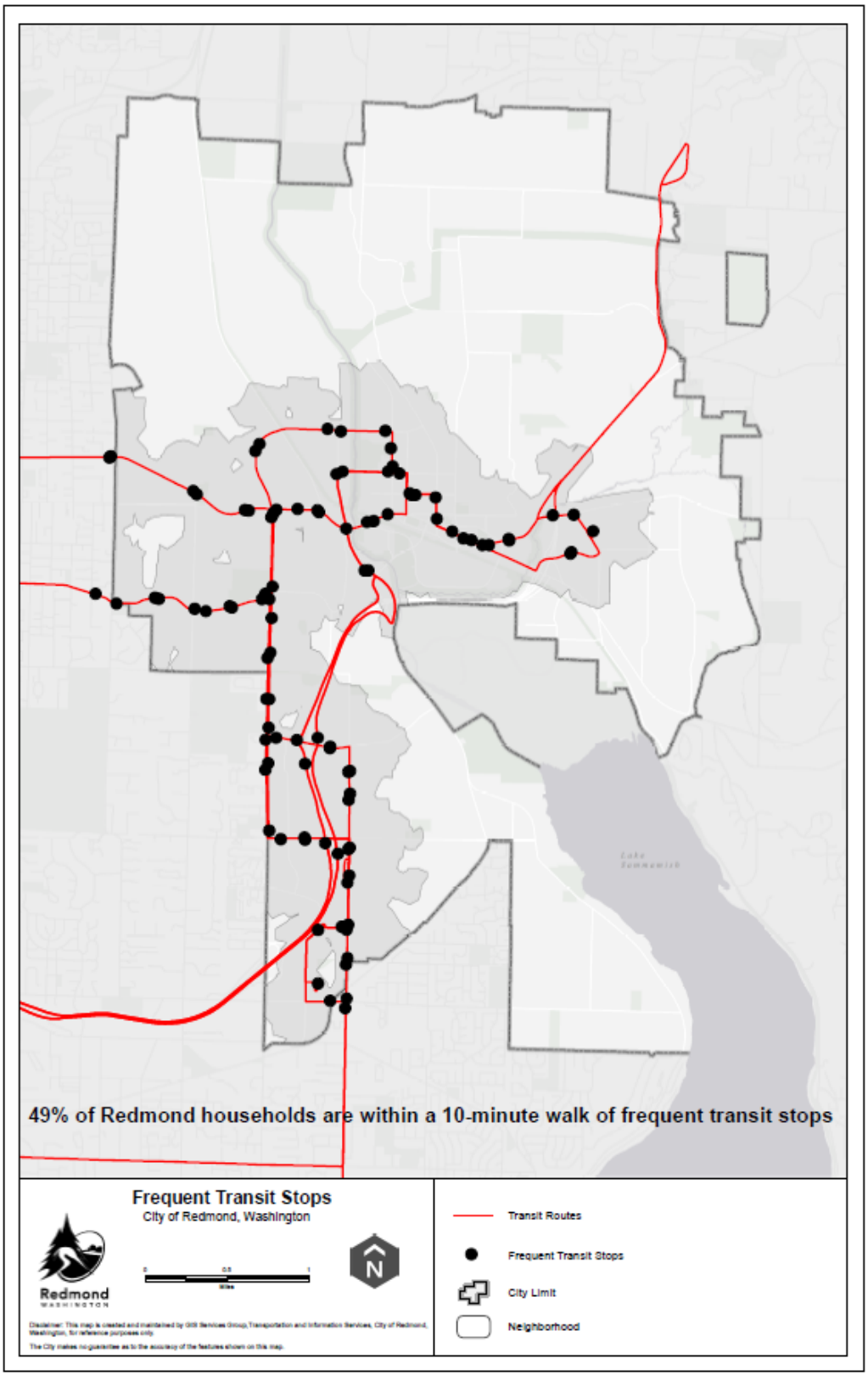
Redmond is transforming from a suburb to a city: a community with dense centers and complete neighborhoods, where people look to transit to get them around town and the region for many types of trips. A comprehensive system of interconnected transit services is critical to improve and sustain Redmond's economic vitality, support the growth and development of Redmond's centers, and meet the mobility needs of community members. There are three key elements that will help the transit system grow to meet a broader range of travel needs throughout the day: 1) a core network of all-day, frequent transit service and a complementary network of supporting services; 2) improving access to, and the speed and reliability of, transit; and 3) identifying key priorities, strategies, and actions between now and 2050 that leverage the investment in light rail.

Transit System Development

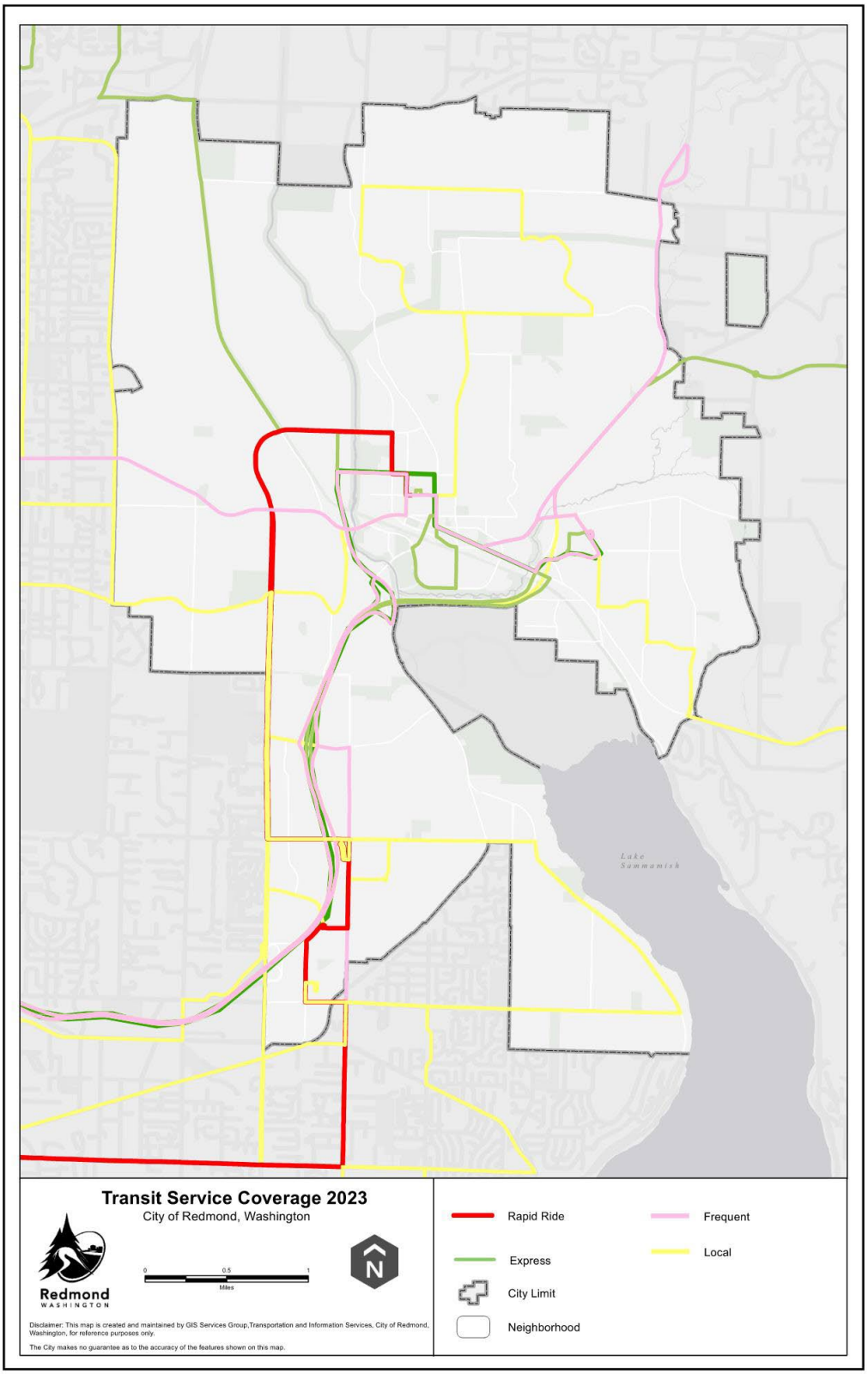
The primary transit agencies operating in Redmond are Sound Transit and King County Metro. While Redmond does not provide transit service directly, it does play a role in identifying priorities and strategies for transit service implementation in collaboration with these transit agencies. Both Metro and Sound Transit face an uncertain funding environment today and into the foreseeable future. It is important for the City to identify the priorities for adding and maintaining transit service. The City will use the transit connections and level-of-service standards specified in this appendix to guide investments in transit service over time. These standards identify the most important "priority connections" between local and regional destinations and specify appropriate levels of transit investment. In addition, these standards will be used to evaluate and assess the transit network as changes, restructures, and reinvestments occur. Where appropriate, the City may partner with transit agencies, employers, and nearby jurisdictions to help support the funding of key transit connections. These actions can help meet transit frequency and hours

of operation standards. The City plays a more direct role in facilitating bus transit speed and reliability, as well as improving access to bus and rail transit corridors and stops. Improving speed and reliability, as well as improving access for pedestrians and bicyclists, are critical for these corridors to meet community travel needs. See *Appendix B Multimodal Level of Service Standards* for Transit Level of Service Standards and Priority Connections.

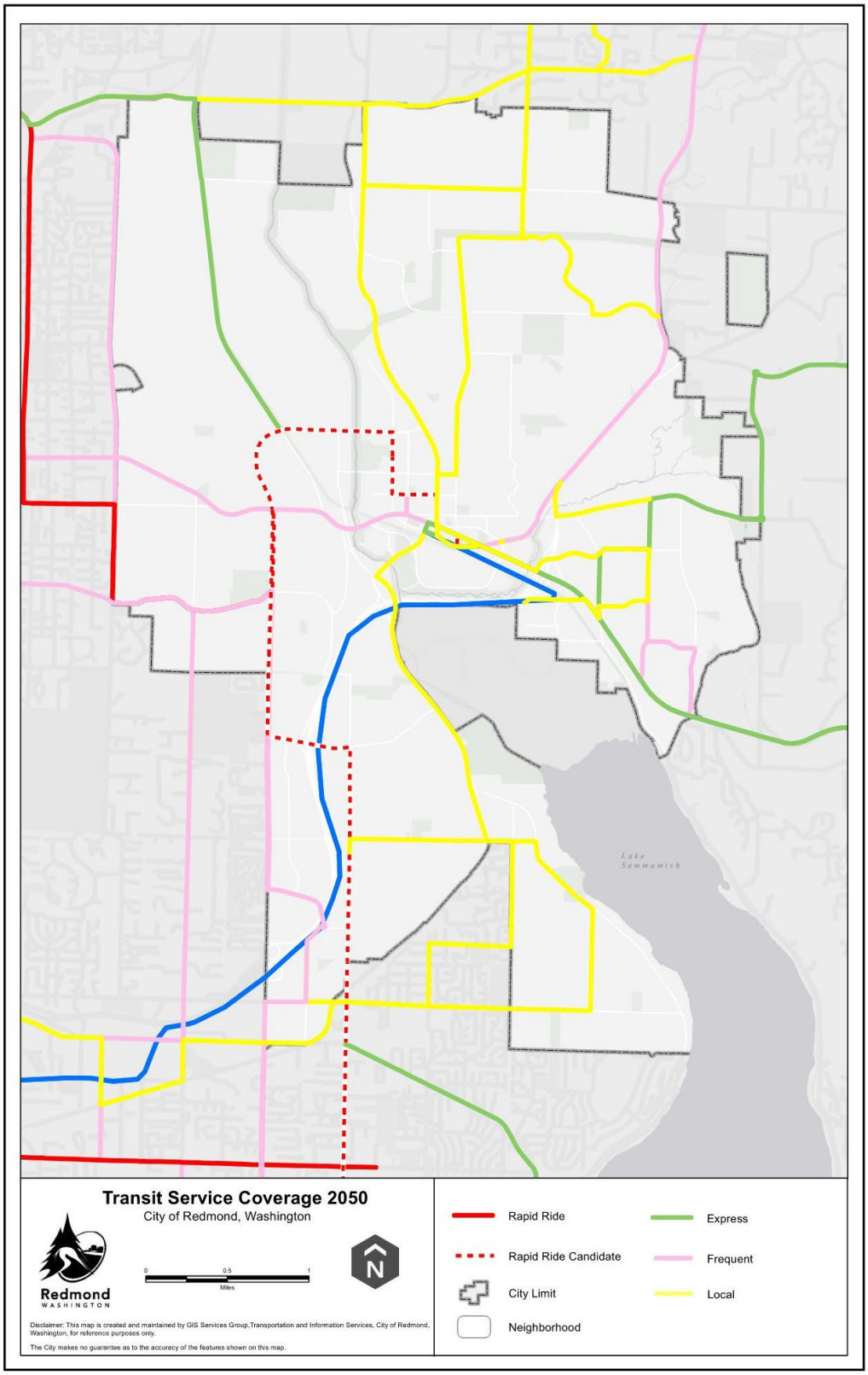
Transit Service Frequency 2023



Transit Service Coverage 2023



Transit Service Coverage 2050



Pedestrian System

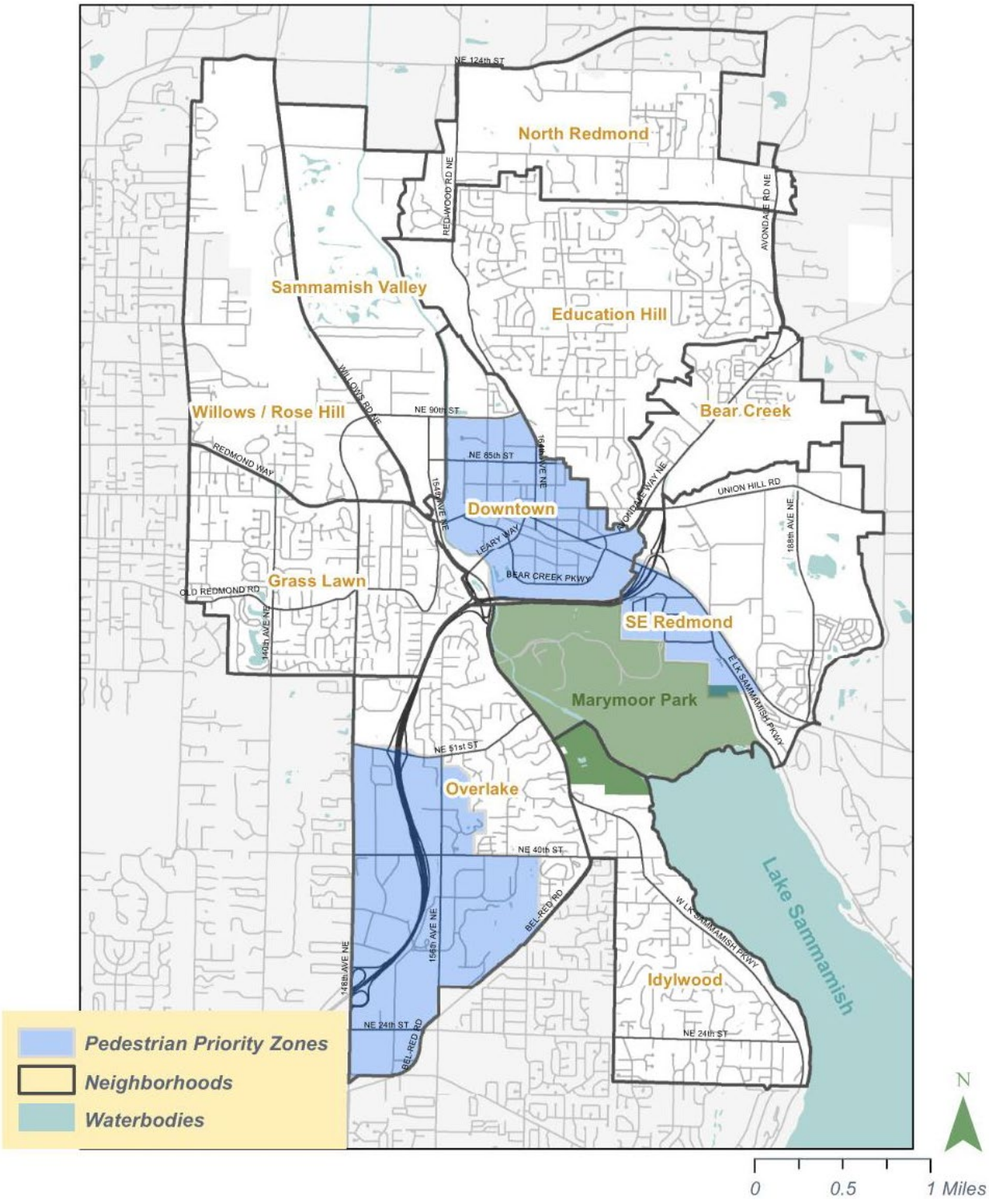
The overall transportation vision relies heavily on a successful pedestrian system that is interwoven into an integrated multimodal transportation system to create a walkable Redmond. The pedestrian strategic approach to making Redmond more walkable is threefold: 1) create high-quality pedestrian environments in centers and light rail station areas; 2) complete a high-density, well-connected network of pedestrian facilities throughout all Redmond neighborhoods; and 3) improve the safety and comfort of all facilities including pedestrian crossings and increasing the separation of pedestrians from traffic.

Every trip, including transit and automobile trips, begins and ends with walking. Walking serves as a foundation for a successful transportation system by meeting significant travel demand in centers, providing efficient access to transit, connecting neighborhood destinations, and creating a vibrant street life. The pedestrian environment is as much about a sense of place (sidewalk cafes, spaces for events, gathering places for conversation, enjoying art and green spaces, and window shopping) as it is the most basic form of travel. An important part of the vision for this plan is creating a safe, walkable Redmond.

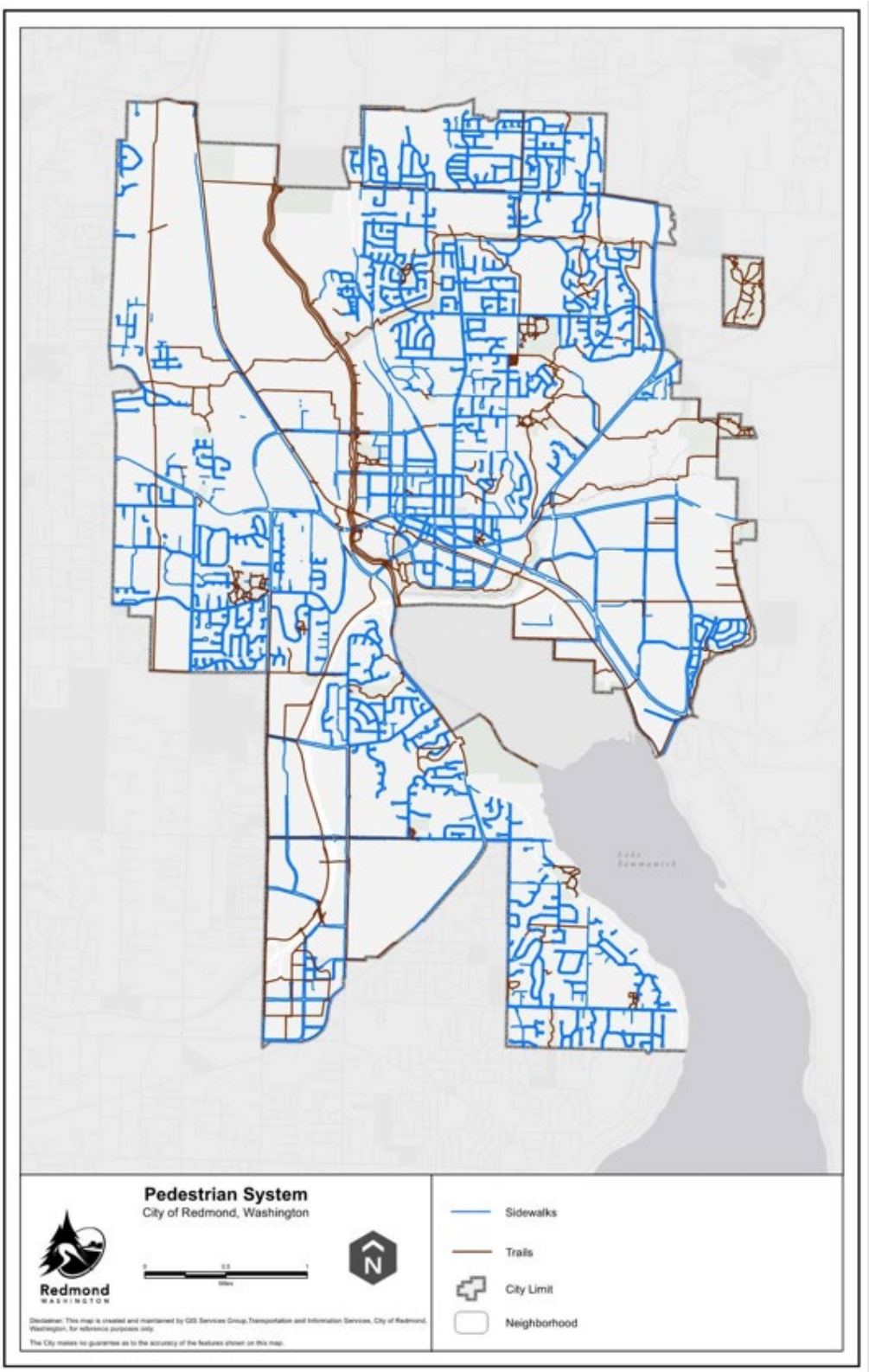
Pedestrian Priority Zones

Urban walking environments will provide mobility for high numbers of pedestrians and form vibrant streetscapes that create a high quality of life in Downtown, Overlake, and Marymoor Village as shown in the pedestrian zone map.

Pedestrian Priority Zones



Pedestrian System 2023



American Disabilities Act (ADA)

The pedestrian system will be designed to provide mobility for all. Public and private investment supports the transition to a pedestrian system that is usable for the mobility impaired, including design treatments, such as curb ramps. This approach also supports the City's compliance with the federal Americans with Disabilities Act (ADA). In order to ensure ADA compliance, the City will create an ADA transition plan.

Bicycle System

Many local trips could be comfortably completed using a bicycle if the available facilities between destinations are safe and comfortable for the user. The accelerating adoption of e-bikes further expands the kinds of trips that can be accomplished on bike.

The bicycle strategy to encourage a significant increase in bicycle trips has three main parts: 1) complete a network of low traffic stress cycling facilities, such as paved shared-use paths, cycle tracks that physically separate the bicyclist from the street and automobile traffic, and bike boulevards on lower volume, lower speed streets; 2) complete a dense network of on-street facilities that shorten bicycle trip lengths and also act as a feeder system to the spine of low traffic stress facilities ; and 3) provide for abundant access to bicycles through shared micromobility program where a person can rent a bicycle, scooter, or other micromobility device. Convenient bike parking, and robust education and encouragement programs round out the complete bicycle strategic approach for Redmond.

Low traffic stress facilities are the foundation of the bicycle strategy because the "interested but concerned" percentage of the population represents the majority of cyclists.

Comfort Typology of Bicyclists

Design User Profile	Non-Bicyclist	Interested but Concerned	Somewhat Confident	Highly Confident
Bicycling Preferences	Uncomfortable bicycling in any condition, have no interest in bicycling, or are physically unable to bicycle.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separate bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic, will use roads without bike lanes.
Percent of Population	31-37%	51-56%	5-9%	4-7%

Note: the percentages above reflect only adults who have stated an interest in bicycling.

Bicycle Travel Supports Urban Mobility

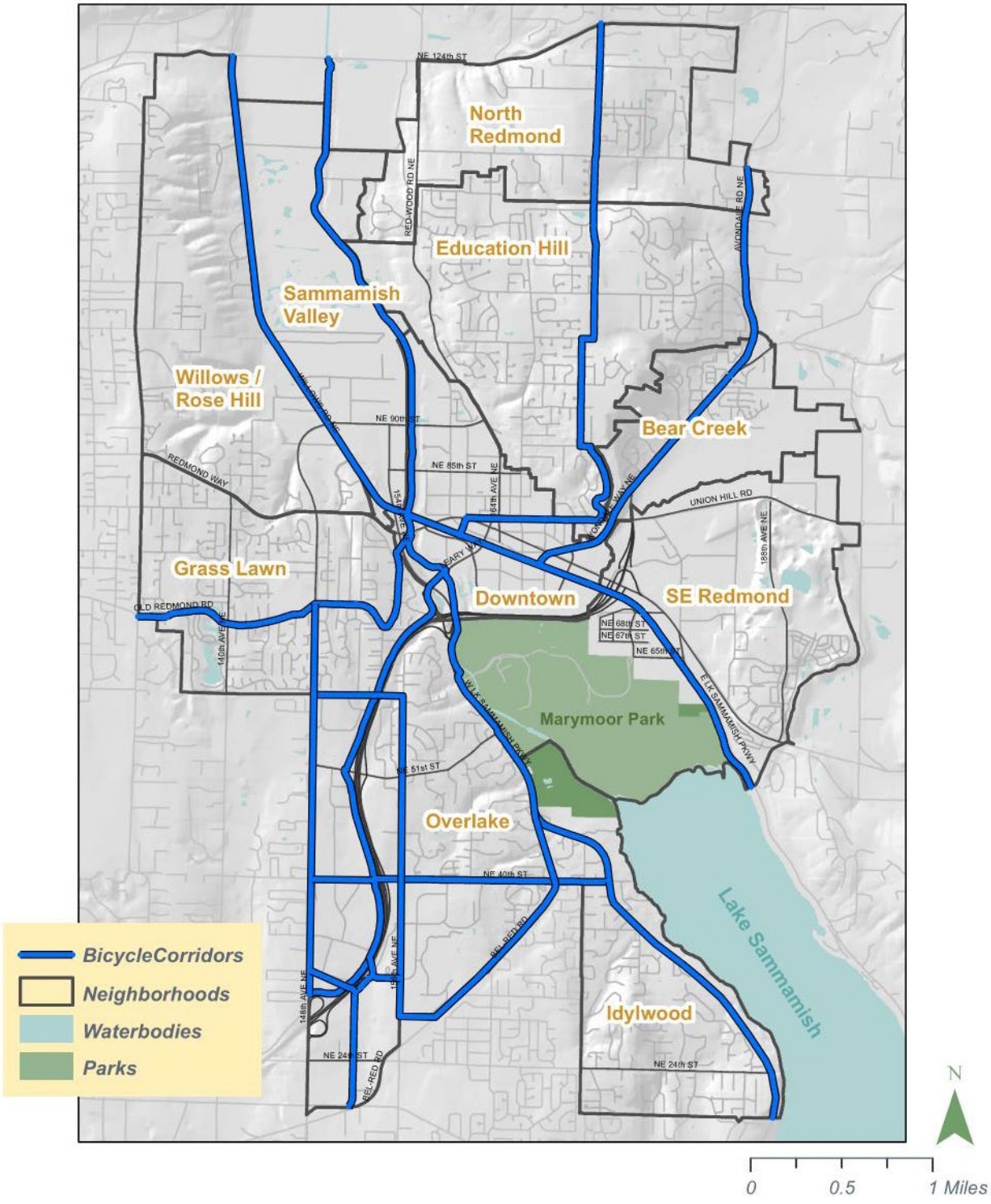
Bicycling is important for supporting light rail ridership. Vehicle parking will be limited due to cost and property impacts, whereas bicycle parking is inexpensive and takes up very little space. Bicycling also significantly increases the number of people that can conveniently access light rail without an automobile. Sound Transit estimates that by 2030, 33 percent of light rail riders will access the Overlake Village station by walking or bicycling (East Link Light Rail FEIS Appendix H1 Table 7-12, East Link Light Rail FEIS Appendix H1 Table 4-11).

The images below illustrate one of the fundamental challenges we face and why a transportation network with increased reliance on active transportation modes is envisioned: moving 200 people in a two-block space means total gridlock by vehicle, even with five lanes, but only takes one lane width when the same 200 people are riding bicycles.

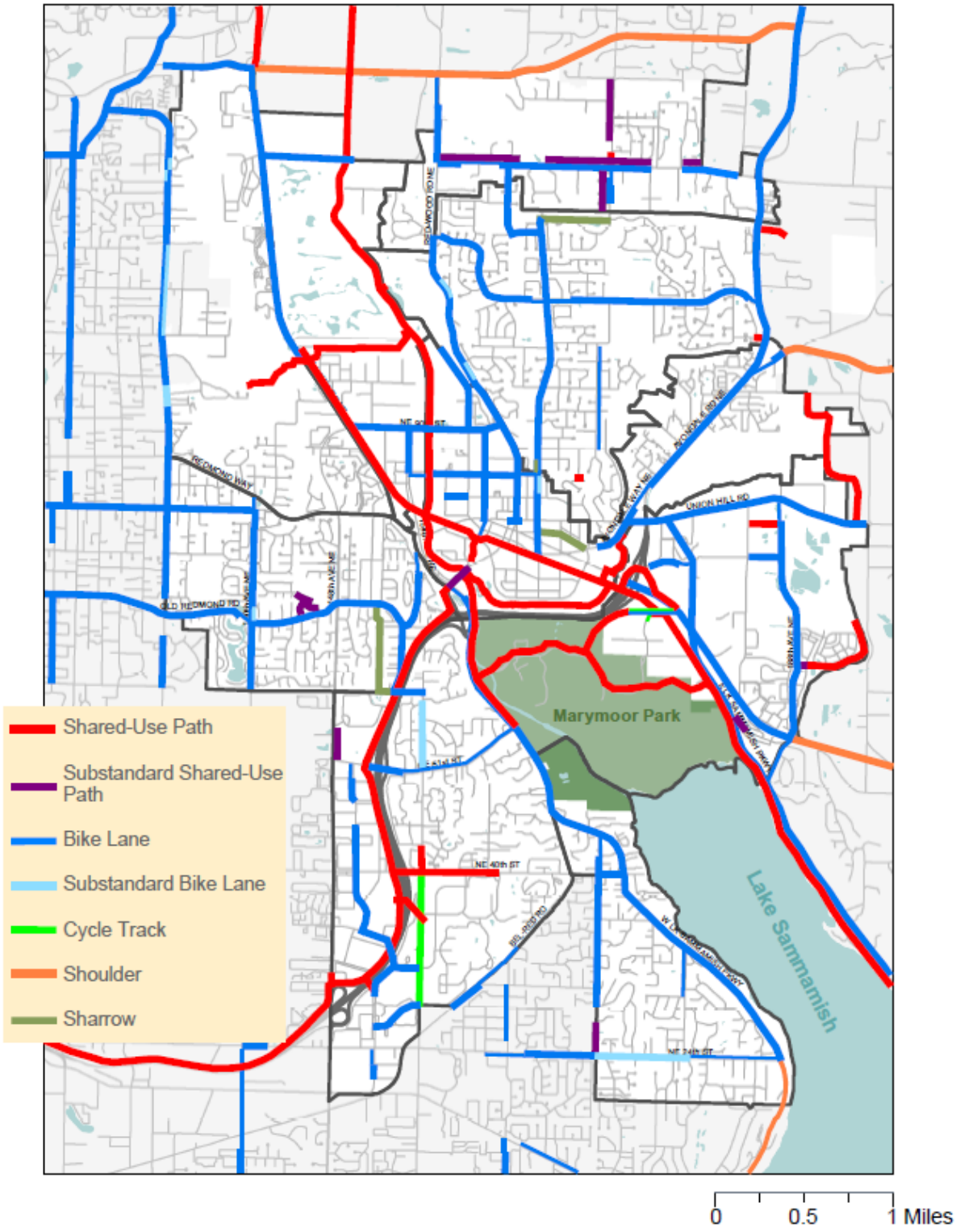
Bicycle System Development

The Redmond Bicycle Design Manual defines the level of traffic stress (LTS) for bicycle facilities in different roadway characteristics, from LTS 1 (lowest stress) to LTS 4 (highest stress). For example, a shared use path is always LTS 1 while painted bicycle lane ranges from LTS 1 on low speed, low volume streets to LTS 4 on high speed, high volume streets. Redmond's goal is to achieve LTS 2 or better on all bicycle modal corridors as shown in the following map.

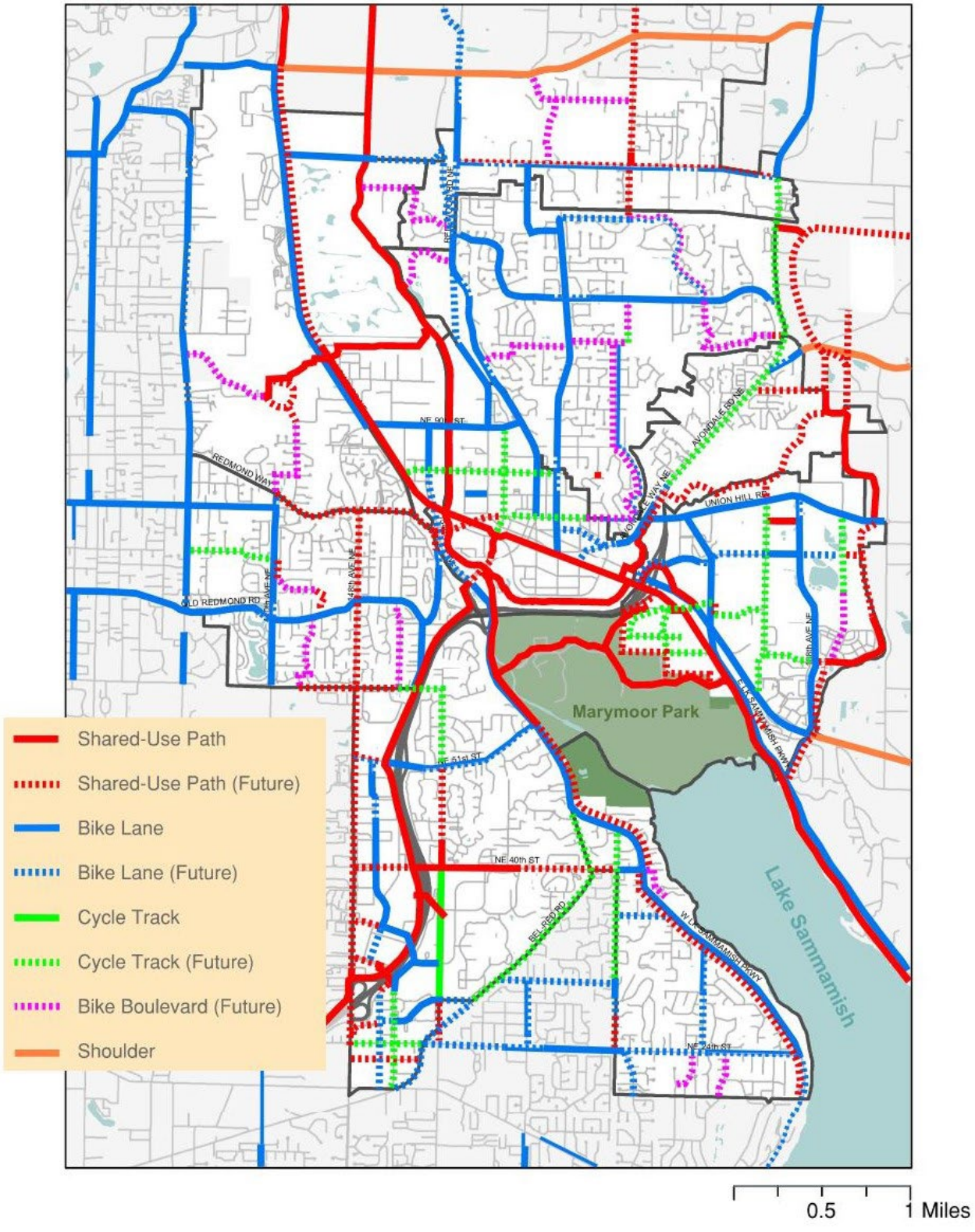
Bicycle Modal Corridors



Bicycle System 2023



Bicycle System 2050



Puget Sound Regional Council

1201 Third Avenue, Suite 500 Seattle, WA 98101-3055 | psrc.org | 206-464-7090

June 21, 2024

Michael Hinze, AICP, RSP[1]
Transportation Planning Manager
City of Redmond
15670 NE 85th Street
Redmond, WA 98073

Dear Mr. Hintze:

We have reviewed the City of Redmond's Downtown Redmond Shared Parking and Circulator Program project and have confirmed that it is consistent with PSRC's long-range Regional Transportation Plan (RTP). Given the nature of this project, it is reflected as a programmatic investment in the plan.

Should this project receive funding and if it is needed, PSRC will work with the City to amend the project into the Regional Transportation Improvement Program and Statewide Transportation Improvement Program as quickly as possible.

Please contact us if you need additional information.

Sincerely,

Jennifer Barnes
Program Manager | Transportation Planning & Projects

The City of Redmond has received letters of support regarding our application to the Washington State Department of Transportation's Regional Mobility Grant application for a shared parking and microtransit vehicle program from a variety of local partners and organizations. Those letters are included in the following order:

1. Redmond Washington state legislators: Senators Manka Dhingra and Patty Kuderer and Representatives Amy Walen, Roger Goodman, Vandana Slatter, and Larry Springer
2. King County Council Member Claudia Balducci
3. Puget Sound Regional Council
4. Sound Transit
5. King County Metro
6. One Redmond
7. Microsoft
8. Amazon
9. Puget Sound Energy
10. Move Redmond
11. Hopelink
12. Plymouth Housing
13. Bellwether Housing
14. The Together Center
15. Eastside for All coalition

Legislative Building

Washington State Legislature Olympia, WA 98504-0600

June 24, 2024

To whom it may concern,

We are writing to express our strong support for the City of Redmond's Regional Mobility Grant application.

With four light rail stations coming to Redmond by 2025, being in the midst of their Redmond 2050 comprehensive planning, and as one of the fastest growing small cities in the country, Redmond's multimodal connectivity needs have never been higher.

The proposed microtransit service will transform mobility in the greater Downtown Redmond area. Like the Bellevue BellHop, this service will aid residents and visitors in navigating the downtown Redmond core and utilize existing parking resources. The project will serve the Redmond Transit Center, Downtown Redmond light rail station, shared parking locations, residential and commercial buildings and neighborhoods. It will connect people to jobs, services, retail, and Redmond's burgeoning tourism industry, and get people out of their cars into cleaner modes of travel.

This project will support our region's mobility and many locally and regionally will benefit. The full 2 line will end at Downtown Redmond station in 2025. Now is the time for this pilot and we urge support.

Sincerely,

Sen. Patty Kuderer – 48th Legislative District

Rep. Roger Goodman – 45th Legislative District

Rep. Amy Walen – 48th Legislative District

Rep. Larry Springer – 45th Legislative District

Rep. Vandana Slatter – 48th Legislative District

Sen. Manka Dhingra – 45th Legislative District

King County

Metropolitan King County Council

June 24, 2024

To whom it may concern,

As the King County Councilmember that represents downtown Redmond, I am writing to express my support for the City of Redmond's Regional Mobility Grant application and project of an on-demand shuttle service and shared parking program aimed at the surrounding community, as well as employees who work in the city. I believe that these two initiatives can enhance transportation options, better manage parking, and foster a more sustainable and inclusive urban environment.

Redmond, like other cities in King County, is changing and evolving to welcome more employment and housing. To meet the opportunities that go along with growth it's critical to concurrently find transportation solutions and choices that follow.

The proposed on-demand shuttle service and shared parking program represent proactive and innovative solutions to these challenges, offering a comprehensive approach that benefits the surrounding community and employees. By providing a convenient and efficient transportation option, the proposed shuttle service will improve access for employees, reduce commute times, and enhance overall mobility within the area. As a longtime proponent of expanding light rail, I'm especially excited about the connection to the new light rail station that this shuttle would provide so they can get around our region via public transportation rather than driving alone.

By encouraging the efficient use of parking spaces and promoting alternative modes of transportation, the program will help manage parking and enhance the quality of life for employees, residents, and visitors alike. I'm grateful for the City of Redmond's leadership and foresight in developing these integrated transportation solutions and for actively engaging with stakeholders.

As a King County Councilmember, I stand ready to support and participate in these initiatives, collaborating with the City of Redmond and other stakeholders to promote awareness, provide input, and contribute to their successful implementation. By working together, we can create a more accessible, equitable, and vibrant urban environment for all. I look forward to the opportunity to contribute to the success of the on-demand shuttle service and shared parking program and to further strengthen our partnership with the City of Redmond.

Sincerely,

Claudia Balducci

King County Councilmember, District 6

Puget Sound Regional Council

1201 Third Avenue, Suite 500 Seattle, WA 98101-3055 | psrc.org | 206-464-7090

June 21, 2024

Michael Hinze, AICP, RSP1
Transportation Planning Manager
City of Redmond
15670 NE 85th Street
Redmond, WA 98073

Dear Mr. Hintze:

We have reviewed the City of Redmond's Downtown Redmond Shared Parking and Circulator Program project and have confirmed that it is consistent with PSRC's long-range Regional Transportation Plan (RTP). Given the nature of this project, it is reflected as a programmatic investment in the plan.

Should this project receive funding and if it is needed, PSRC will work with the City to amend the project into the Regional Transportation Improvement Program and Statewide Transportation Improvement Program as quickly as possible.

Please contact us if you need additional information.

Sincerely,

Jennifer Barnes
Program Manager | Transportation Planning & Projects

June 21, 2024

Mayor Angela Birney
City of Redmond
15670 NE 85th Street
Redmond, WA 97101

Mayor Birney:

I am writing on behalf of Sound Transit to support the City of Redmond's application for the Regional Mobility Grant, which would support its implementation of an on-demand shuttle service and parking program. By increasing transportation options and alleviating parking pressures, these initiatives would foster a more sustainable, inclusive, and economically robust urban environment.

The proposed shuttle service would provide a convenient and efficient transportation option to and from offices, retail, and residential areas. In doing so, it would not only ensure more residents are better able to access employment, essential services, and social connection — it would do so while reducing commute times, the number of vehicles on the road, and greenhouse gas emissions.

At Sound Transit, we are also particularly excited at the prospect of the shuttle service connecting residents to Link light rail at the future Downtown Redmond Station, which is scheduled to open in spring 2025. The shuttle would provide immediate access to our 2 Line and, soon after, the entirety of our light rail system.

Furthermore, the City's shared-parking program would optimize use of existing parking resources, thereby reducing congestion in frequently visited areas. This increased efficiency would again help in lowering emissions and easing access to jobs, healthcare, and more.

The City developed its proposals through active engagement with a wide range of community stakeholders, ensuring the initiatives meet a diverse set of needs. No matter any one passenger's destination, the shuttle service and parking program would contribute to greater vitality and mobility in Redmond and across the region.

CHAIR
Dow Constantine
King County Executive

VICE CHAIRS
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Fife Mayor

Dave Somers
Snohomish County Executive

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Auburn Mayor

Claudia Balducci
King County Councilmember

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Bruce Harrell
Seattle Mayor

Jim Kastama
Puyallup Mayor

Roger Millar
Washington State Secretary of Transportation

Ed Prince
Renton Councilmember

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Seattle Councilmember

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King County Council Chair

Peter von Reichbauer
King County Councilmember

Kristina Walker
Tacoma Councilmember

Girmay Zahilay
King County Council Vice Chair

INTERIM CHIEF EXECUTIVE OFFICER
Goran Sparrman

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

Sound Transit supports efforts to connect more people to more places to make life better and create equitable opportunities for all. We are pleased to endorse the City of Redmond's application and urge WSDOT to include it for funding.

Sincerely,

John S. Henry
Deputy CEO, Chief Finance & Business Administration Officer

Central Puget Sound Regional Transit Authority • Union Station
401 S. Jackson St., Seattle, WA 98104-2826 • Reception: (206) 398-5000 • FAX: (206) 398-5499
www.soundtransit.org

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King County
Department of Transportation
Metro Transit Division
Service Development
201 South Jackson Street
KSC-TR-0426
Seattle, WA 98104-3856

To whom it may concern,

On behalf of King County Metro Transit Division, I am writing to express our support for the City of Redmond application for a Regional Mobility Grant to pilot an on-demand flexible service within the City of Redmond.

At Metro, we understand the importance of sustainable and efficient transportation solutions for our community. The introduction of an on-demand service represents a way to continue learning how mobility options can address local transportation challenges while promoting accessibility, increasing shared rides, and reducing congestion. This initiative aligns with our shared goals of enhancing mobility options, reducing environmental impact, and learning how emerging mobility options fit into the transit network and larger transportation system.

Residents and visitors alike will benefit from improved access, which in turn supports local businesses and reduces the strain on our urban infrastructure. We are excited to see how this program can enhance mobility, leverage existing park and ride locations, and increase ridership on the light rail and bus network in downtown Redmond. Additionally, the introduction of an on-demand service will provide convenient and flexible transportation alternatives, encouraging more sustainable travel choices and reducing reliance on single-occupancy vehicles.

Metro also supports and appreciates the City of Redmond's commitment to collaborate in developing the service, sharing detailed data from the service (including origins and destinations and other performance data) and learning how this service fits into the broader mobility network in King County. Their openness to evolving partnerships around mobility options into the future will help us serve King County residents with continued service excellence.

We are committed to supporting the City of Redmond in the successful implementation and ongoing operation of transportation solutions; and partnering to build an overall mobility system that meets the needs of the people of King County. Please do not hesitate to reach out if Metro can provide any further assistance or support.

Sincerely,

DocuSigned by:
Chris O'Claire
5639CF2A18F148D...

6/24/2024

Cc: Peter Heffernan, Intergovernmental Relations, King County Metro

DocuSign Envelope ID: A34B0299-DF2C-4FD9-B5C3-7867764D3B20

OneRedmond

Executive Committee

Steve Yoon
President
Mill Creek Residential

Ryan Baumgartner
Treasurer
SCS

Tom Markl
Secretary
Nelson Legacy Group

Michael Mattmiller
Past President
Microsoft

Mayor Angela Birney
At-Large
City of Redmond

Board of Director

Mary Morrow
Past President
Nelson Legacy Group

Vanessa Kritzer
Council President
City of Redmond

Barb Wilson
Microsoft

Eva Macdonald
Meta

Keri Pravitz
Amazon

Angela Rozmyn
Natural and Built Environments

Stephanie Lizza
EvergreenHealth

Katie Kendall
McCullough Hill Leary

Victor Mesa
UniSea

Matt Larson
Puget Sound Energy

Lauren Paolini
AT&T

Melody Lanthorn
Seattle Marriott Redmond

Committee Chairs

Melody Lanthorn
Lodging and Tourism
Seattle Marriott Redmond

Ryan Baumgartner
Finance
SCS

Tom Markl
Government Affairs
Nelson Legacy Group

June 10, 2024

To whom it may concern,

On behalf of the OneRedmond Board, I am writing to express our support for the City of Redmond's Regional Mobility Grant application and project of an on-demand shuttle service and shared parking program that aims to address transportation challenges and promote sustainable mobility within our community. These initiatives represent important steps toward enhancing accessibility, reducing congestion, and improving the quality of life for residents, employees, and visitors alike.

As the Chamber of Commerce and Tourism Promotion Area Managing Organization, we are committed to serving the needs and interests of our businesses and understand the critical role that transportation plays in shaping the livability and economic vitality of our city. Limited parking availability, traffic congestion, and first/last mile connections from public transit can create significant barriers to mobility, employment opportunities, and recreational activities.

The proposed on-demand shuttle service and shared parking program offer innovative solutions to these pressing challenges, providing convenient, efficient, and sustainable transportation options for residents, workers, and visitors. By offering on-demand shuttle services tailored to the needs of different neighborhoods and implementing a shared parking program to optimize parking resources, the City of Redmond has demonstrated its commitment to enhancing mobility and promoting equitable access to transportation throughout our community.

Furthermore, these initiatives align with broader efforts to promote sustainability, reduce greenhouse gas emissions, and create more walkable, bikeable, and transit-friendly neighborhoods. By encouraging the use of alternative modes of transportation and reducing reliance on single-occupancy vehicles, the on-demand shuttle service and shared parking program will contribute to our city's efforts to combat climate change and build a more resilient and environmentally sustainable community for future generations.

We commend the City of Redmond for its leadership and vision in advancing these forward-thinking transportation solutions and for actively engaging with stakeholders to ensure that the needs and priorities of our community are addressed. We are confident that the on-demand shuttle service and shared parking program will have a positive impact on the quality of life for residents and visitors, enhancing mobility, reducing congestion, and fostering a more vibrant and inclusive urban environment.

OneRedmond | 8383 158th Ave NE, STE 225, Redmond, WA 98052 | 425.885.4014

We stand ready to support and advocate for the implementation of these initiatives, working collaboratively with the City and other stakeholders to promote awareness, secure funding, and address challenges that may arise. Together, we can build a transportation system that meets the needs of all members of our community and helps to create a more sustainable, equitable, and prosperous future for our city.

Thank you for your dedication to improving transportation options and enhancing the quality of life in our community. We look forward to working with you to ensure the success of the on-demand shuttle service and shared parking program, and to continue advancing our shared goals of building a more inclusive and sustainable city for all.

Sincerely,

Kristina Hudson
Chief Executive Officer

June 20, 2024

To whom it may concern,

Microsoft Corporation, the largest employer within the City of Redmond, strongly supports the City of Redmond's Regional Mobility Grant application and project of an on-demand shuttle service and shared parking program aimed at serving employees of our corporation and the surrounding community.

These initiatives hold tremendous potential to enhance transportation options, alleviate parking pressures, and foster a more sustainable and inclusive urban environment. Microsoft understands the importance of addressing transportation challenges to ensure the well-being and productivity of our employees and to support the broader community.

- The proposed on-demand shuttle service and shared parking program represent proactive and innovative solutions to these challenges, offering a comprehensive approach that benefits both our employees and the surrounding community. By providing a convenient and efficient transportation option, the shuttle service will improve access to our campus, reduce commute times, and enhance overall mobility within the area.

- The shared parking program will optimize the utilization of parking resources, maximizing efficiency and reducing congestion in the vicinity of our corporate campus. By encouraging the efficient use of parking spaces and promoting alternative modes of transportation, the program will help alleviate parking pressures and enhance the quality of life for employees, residents, and visitors alike.

We commend the City of Redmond for its leadership and foresight in developing these integrated transportation solutions. We are excited to explore how such a program could be integrated into our Commute Trip Reduction programs to further accomplish the goals to reduce drive-alone rates in Washington state. We stand ready to collaborate with the City of Redmond and other stakeholders to promote the successful implementation of these programs.

Sincerely,

Barb Wilson

Barb Wilson, Microsoft
Puget Sound Government Affairs

June 25, 2024

Washington State Department of Transportation
Regional Mobility Grant Program

Via electronic mail: PTDGrants@wsdot.wa.gov

RE: City of Redmond, Regional Mobility Grant Application

To whom it may concern,

I write to express Amazon's support for the City of Redmond's application to the Washington State Department of Transportation's Regional Mobility grant program. The City of Redmond is proposing an on-demand shuttle service and shared parking program aimed at serving workers, residents, and the surrounding community. As a large employer with a significant presence in Redmond, we recognize the importance of enhancing transportation options, alleviate parking pressures, and foster a more sustainable and inclusive urban environment.

The proposed on-demand shuttle service and shared parking program represent proactive and innovative solutions to transportation challenges, offering a comprehensive approach that benefits both our employees and the surrounding community.

We ask that you give the City of Redmond's application full consideration. We commend the City of Redmond for its leadership in developing these integrated transportation solutions and for actively engaging with stakeholders to ensure that the needs and priorities of employers and the surrounding community are addressed. Please let us know if you have any questions.

Sincerely,

Pearl Leung
Senior Manager, Public Policy
Amazon

2121 7th Avenue
Seattle, WA 98121

PUGET SOUND ENERGY

June 20, 2024

Regional Mobility Grant Program
Washington State Department of Transportation

To Whom It May Concern:

On behalf of Puget Sound Energy (PSE), I am writing to express our support for the City of Redmond's application to the Washington State Department of Transportation Regional Mobility Grant Program. The on-demand electric shuttle service and shared parking project proposed in the grant application will address key transportation challenges and promote sustainable mobility in Redmond. These initiatives represent important steps toward enhancing accessibility, reducing congestion, and improving the quality of life for residents and visitors.

Puget Sound Energy is Washington State's oldest and largest privately-owned and publicly regulated electric and natural gas utility. Today, PSE delivers safe, reliable and affordable energy to approximately 1.1 million electric customers and 840,000 natural gas customers across ten counties in western and central Washington, including the City of Redmond. By 2045, PSE will have a 100% carbon free electric supply. Our goal is to partner with customers and industries to identify programs which cost-effectively reduce carbon emissions across our region. We strive to be our customers' clean energy partner of choice and we continually work with them to develop innovative ways to serve their energy needs and help meet their environmental goals.

Transportation is the largest contributor to greenhouse gas emissions in Washington and plays a critical role in shaping the livability and vitality of cities. Limited parking availability, traffic congestion, and first/last mile connections from public transit can create significant barriers to mobility, impeding access to essential services, employment opportunities, and recreational activities. The proposed on-demand electric shuttle service and shared parking program offers an innovative solution to these pressing challenges by providing convenient, efficient, and sustainable transportation options for residents, workers, and visitors. This project will enhance mobility and promote equitable access to transportation by offering on-demand shuttle services tailored to the needs of different neighborhoods and implementing a shared parking program to optimize parking resources.

Puget Sound Energy is supportive of the City of Redmond's application and their pursuit of funding to the Regional Mobility Grant Program. By encouraging the use of alternative modes of transportation and reducing reliance on single-occupancy vehicles, the on-demand electric shuttle service and shared parking program will contribute to our region's efforts to combat climate change and build a more resilient and environmentally sustainable community.

Sincerely,

Heather Mulligan

Heather Mulligan
Manager, Customer Clean Energy Solutions

Move Redmond

Board of Directors

President
Shannon Mangan
Cascade Bicycle Club

Secretary
Carlos Cruz
Redmond Resident

Treasurer
Wes Mills
Redmond Employee

Angela Rozymn
Natural & Built Environments

Jeff Aumell
Microsoft

Charles Duba
DigiPen

Sue Stewart
Redmond Resident

Phil Miller
Redmond Resident

Washington State Department of Transportation
310 Maple Park Avenue SE
P.O. Box 47300
Olympia, WA 98504-7300

RE: City of Redmond, Regional Mobility Grant Support Letter

To whom it may concern,

Move Redmond is pleased to express our strong support for the City of Redmond's Regional Mobility Grant Application that would fund a shared parking program and an on-demand microtransit vehicle service. Move Redmond is a Transportation Management Association and advocates for making Redmond a more livable community through investments in walking, biking, and transit. Our organization recognizes the profound impact that accessible transportation has on the well-being of all community members.

Transportation barriers often pose significant challenges, especially for those experiencing financial insecurity, people with mobility challenges, and non-drivers. The introduction of an on-demand microtransit vehicle service is a critical step towards eliminating these barriers. It solves the first/last mile problem, and ensures that residents, workers, and visitors can fully benefit from the new light rail coming to Downtown Redmond.

By providing a convenient and affordable transportation option, on-demand service has the potential to significantly reduce reliance on single-occupancy vehicles, aligning with our mission to reduce vehicle miles traveled and increase access to transit. Investing in innovative solutions like the on-demand microtransit service demonstrates a commitment to fostering inclusive and sustainable communities. It enhances access for people who live in areas where adding additional fixed route transit service is not viable or the transit runs infrequently. It also supports access to essential services like healthcare, education, and employment.

As a Transportation Management Association, Move Redmond knows the importance of proper parking management. Parking Management is critical to effectively allocating public space and right of way to the highest and best use, while also meeting the demand of parking in Downtown Redmond. Currently in Redmond there is an excess of large parking lots and a perception that there is not enough parking. Parking lots must be managed and shared to more effectively use space and meet the demands of people seeking parking near light rail in Downtown Redmond. Managing parking alone is not going to solve the issue of a mis-matched expectation of free, available parking right in front of a destination. A key part of managing the parking problem is the adaptive challenge of shifting expectations around what parking is available. This is critical work in behavior change and in supporting Redmond in its shift from suburban community to growing city. A key part of the vision for this grant is not only funding, typical parking management, but doing the critical communications work and encouragement through TDM programming.

Redmond is a regional job center, employees live all over the Puget Sound Region and commute into Redmond because of its high quality paying jobs and access to economic opportunity. In

Move Redmond

Redmond 90% of people who work here do not live here. People take ferries, vanpools, multiple buses and often drive when there are no alternatives available to reach Redmond. Improving transit access to and from light rail and managing parking in this City not only benefit the residents but the many employees who commute from around the region. The more seamless we can make the trips from a transit hub to people's final destination, the more competitive transit will be compared to driving and people will change behavior to reduce vehicle miles traveled.

Move Redmond appreciates the thoughtful approach that the City of Redmond is taking in this grant application and we believe that these projects are critical to the success of the light rail and bus transit in Redmond. We know that the decisions in Redmond have a regional impact because of its prominence as an employment center and quickly growing city in the region.

Thank you for your dedication to improving the lives of our community members and for considering our input on this crucial initiative. We look forward to continuing our partnership and supporting efforts to enhance transportation equity in Redmond.

Sincerely,

Kelli Refer
Executive Director
Move Redmond

hopelink
hopelink.org
8990 154th Ave. NE
Redmond, WA 98052

To Whom it May Concern,

I am writing on behalf of Hopelink to express our enthusiastic support for the City of Redmond's Regional Mobility Grant Application and proposed project of shared parking and an on-demand microtransit vehicle. As an organization deeply committed to supporting vulnerable communities, including Redmond, we recognize the invaluable impact that accessible transportation can have on improving access and overall well-being.

Transportation barriers often pose significant challenges particularly for individuals and families experiencing financial insecurity. The introduction of an on-demand microtransit vehicle service represents a crucial step towards addressing these first/last mile barriers and ensuring all Redmond community members can fully utilize the new light rail transit coming to Redmond.

By providing a convenient and affordable transportation option, the on-demand microtransit vehicle service has the potential to provide non-single occupancy vehicle access for residents across our community. This initiative aligns closely with our vision for a coordinated transportation network that allows all people to move freely around East King County and throughout the Puget Sound region.

Moreover, we commend the City of Redmond for its proactive approach to addressing the complex interplay of transportation and social equity issues within our community. By investing in innovative solutions like the on-demand microtransit vehicle service, the City of Redmond demonstrates its commitment to fostering inclusive and sustainable communities where all residents have the opportunity to lead healthy and fulfilling lives.

In addition to facilitating access to our programs and partner agencies, we anticipate that the on-demand microtransit vehicle service will also enhance access to other essential services, such as healthcare facilities, educational institutions, and employment opportunities. This holistic approach to transportation planning underscores the City of Redmond's dedication to promoting social equity and fostering community resilience.

As a trusted partner in serving Redmond's community, Hopelink stands ready to collaborate with the City of Redmond and other stakeholders to ensure the success and sustainability of the on-demand microtransit vehicle service. Together, we can work towards building a more just and inclusive community where everyone has the opportunity to access the resources they need to thrive.

Thank you for your commitment to improving the lives of our community members and for considering our input on this important initiative. We look forward to continuing our collaboration and supporting efforts to enhance transportation equity in Redmond.

Sincerely,

Susan Carter
Susan Carter (Jun 17, 2024 07:59 PDT)

Susan Carter
VP of Transportation

Plymouth Housing
Building Hope. Transforming Lives.

June 24, 2024

To Whom It May Concern:

I am writing on behalf of Plymouth Housing to express our full support for the City of Redmond Regional Mobility Grant Application and proposed project of shared parking and an on-demand microtransit vehicle.

As an organization deeply committed to equity and community health, we recognize the invaluable impact that accessible transportation can have on community well-being. We know that transportation barriers often pose significant challenges for people experiencing financial insecurity. The introduction of an on-demand microtransit vehicle service represents a crucial step towards addressing these first/last mile barriers and ensuring all Redmond community members can fully utilize the new light rail transit coming to Redmond.

Plymouth Housing has worked for more than 40 years to solve homelessness through housing, and we are currently developing 100 units of new permanent supportive housing close to Redmond's major bus lines and new light rail station. By providing a convenient and affordable transportation option, the on-demand microtransit vehicle service will help the future residents of our building access the many resources and community amenities Redmond has to offer. We anticipate the program will connect our residents to essential services, such as healthcare facilities and educational institutions. Access and availability of transportation is critical for service utilization, and we believe our residents would greatly benefit from this potential program.

By approaching transportation and housing planning holistically, the City of Redmond has demonstrated its dedication to promoting social equity and fostering community resilience. We commend the City for its proactive approach and investments in innovative solutions like this to ensure all residents have the opportunity to lead healthy and fulfilling lives. We are ready and eager to collaborate with the City and other stakeholders to ensure the success and sustainability of the on-demand microtransit vehicle service in Redmond.

Thank you for considering our input on this important initiative.

Sincerely,

Karen Peterson

Karen Peterson
Vice President of Real Estate

2113 Third Avenue, Seattle, WA 98121-2321 | 206-374-9409
@PlymouthHousing PlymouthHousing.org

BELLWETHER
HOUSING

June 24, 2024

To whom it may concern,

I am writing on behalf of Bellwether Housing to express support for the City of Redmond Regional Mobility Grant Application and their proposed project of shared parking and an on-demand microtransit vehicle.

This initiative aligns with Bellwether's mission to provide affordable housing to residents in urban King County near public transit, jobs, schools, and community resources. We recognize the importance of accessible transportation to help individuals and families live their lives in ways that work for them.

Bellwether Housing is currently developing The Prisma, a 333-unit affordable rental housing project adjacent to the Overlake Village Station in Redmond. It is expected to open in 2027. The ground floor commercial spaces will feature a small business incubator and culturally informed local community services.

On-demand microtransit vehicle service addresses barriers to transportation, particularly first/last mile barriers, and increases social equity by providing a full spectrum of transportation options. A wide array of available transportation options is well understood to increase community resilience.

Bellwether Housing stands ready to collaborate with the city and other stakeholders to ensure the success and sustainability of the on-demand microtransit vehicle service.

Sincerely,

Jovan Ludovice
Vice President for Development

433 Minor Ave N
Seattle, WA 98109

TOGETHER CENTER

To whom it may concern,

I am writing on behalf of Together Center to express our enthusiastic support for the City of Redmond Regional Mobility Grant Application and proposed project of shared parking and an on-demand microtransit vehicle. As an organization deeply committed to supporting vulnerable communities within Redmond, we recognize the invaluable impact that accessible transportation can have on improving access and overall well-being.

Transportation barriers often pose significant challenges for individuals and families experiencing financial insecurity. The introduction of an on-demand microtransit vehicle service represents a crucial step towards addressing these first/last mile barriers and ensuring all Redmond community members can fully utilize the new light rail transit coming to Redmond.

By providing a convenient and affordable transportation option, the on-demand microtransit vehicle service has the potential to increase non-single occupancy vehicle access for residents across our community. This initiative aligns closely with our mission to create access to human services to people can find help when they need it.

Moreover, we commend the City for its proactive approach to addressing the complex interplay of transportation and social equity issues within our community. By investing in innovative solutions like the on-demand microtransit vehicle service, the City demonstrates its commitment to fostering inclusive and sustainable communities where all residents have the opportunity to lead healthy and fulfilling lives.

In addition to facilitating access to our programs and partner agencies, we anticipate that the on-demand microtransit vehicle service will also enhance access to other essential services, such as healthcare facilities, educational institutions, and employment opportunities. This holistic approach to transportation planning underscores the City's dedication to promoting social equity and fostering community resilience.

As a trusted partner in serving Redmond's community, Together Center stands ready to collaborate with the City and other stakeholders to ensure the success and sustainability of the on-demand microtransit vehicle service. Together, we can work towards building a more just and inclusive community where everyone has the opportunity to access the resources they need to thrive.

Thank you for your commitment to improving the lives of our community members and for considering our input on this important initiative. We look forward to continuing our collaboration and supporting efforts to enhance transportation equity in Redmond.

Sincerely,

Kim Sarnecki, CEO

16305 NE 87th St, Suite 110; Redmond, WA 98052 • 425-869-6699 • info@togethercenter.org • www.togethercenter.org

EASTSIDE FOR ALL

EastsideForAll.org | 425-209-0895

June 13, 2024

To Whom It May Concern:

I am writing on behalf of Eastside For All to express our enthusiastic support for the City of Redmond Regional Mobility Grant Application and proposed project of shared parking and an on-demand microtransit vehicle. As an organization deeply committed to supporting the needs of people of color, immigrant, and lower-income communities in Redmond, we recognize the invaluable impact that accessible transportation can have on improving access and overall well-being.

Transportation barriers often pose significant challenges for individuals and families experiencing financial insecurity. The introduction of an on-demand microtransit vehicle service represents a crucial step towards addressing these first/last mile barriers and ensuring all Redmond community members can fully utilize the new light rail transit coming to Redmond.

By providing a convenient and affordable transportation option, the on-demand microtransit vehicle service has the potential to increase non-single occupancy vehicle access for residents across our community.

In addition to facilitating access to our programs and partner agencies, we anticipate that the on-demand microtransit vehicle service will enhance access to other essential services, such as healthcare facilities, educational institutions, and employment opportunities.

We hear often from our community members about the need for more transportation options that are affordable, reliable, and effective. This initiative aligns closely with our mission to support systemic and structural solutions that address racial, social, and economic inequities. We're grateful to the City for its dedication to social equity and innovations that can make a meaningful difference in people's daily lives.

As a trusted partner in serving Redmond's community, Eastside For All welcomes the opportunity to work with the City and other stakeholders for the success and sustainability of the on-demand microtransit vehicle service. Together, we can work towards building a more just and inclusive community where everyone has the opportunity to access the resources they need to thrive.

Thank you for your commitment to improving the lives of our community members and for considering our input on this important initiative. We look forward to continuing our collaboration and supporting efforts to enhance transportation equity in Redmond.

Sincerely,

Debbie Lacy, Founder/Executive Director
Eastside For All

Washington State Department of Transportation

Public Transportation Division
310 Maple Park Avenue S.E.
P.O. Box 47387
Olympia, WA 98504-7387

WSDOT Contact: Matthew Cramer
WSDOT E-mail: Matthew.Cramer@wsdot.wa.gov
WSDOT Phone: 360-905-2152

Regional Mobility Grant Program

Agreement Number	PTD1148	***Grantee:***	
Term of Agreement	July 1, 2025 through June 30, 2027		**City of Redmond**
Vendor #	916001492		**PO Box 9710**
UEI	XK1UCKFKU3N9		**Redmond, WA 98073-9710**
ALN # / ALN Name	N/A		
Indirect Cost Rate	N/A		
R & D	No	**Contact:**	Kim Keeling
Service Area	King County	**Email:**	khkeeling@redmond.gov

THIS AGREEMENT, entered into by the Washington State Department of Transportation, hereinafter "WSDOT," and the Grantee identified above, hereinafter the "GRANTEE," individually the "PARTY" and collectively the "PARTIES."

WHEREAS, the State of Washington in its Sessions Laws of 2025, ESSB 5161 Sections 221 and 308 authorizes funding for Public Transportation Programs and other special proviso funding as identified in the budget through its 2025-2027 biennial appropriations to WSDOT; and

WHEREAS, the GRANTEE has requested funds for the project(s) or program(s) shown under the heading titled "Funding by Project" (hereinafter known as the "Project(s)") which has been selected by WSDOT for funding assistance.

NOW THEREFORE, in consideration of the terms, conditions, covenants, and performances contained herein, or attached and incorporated and made a part hereof, IT IS MUTUALLY AGREED AS FOLLOWS:

SECTION 1
SCOPE OF WORK AND BUDGET

Funding by Project

Project Title: City of Redmond-TDM Parking Managemnt & On-Demand Microtransit Plan
UPIN # 20250008
Scope of Work: Provide on-demand micro transit service and a shared parking program to enhance local and regional mobility to Downtown Redmond, which is the future end of the Sound Transit 2 line.

Funds	Current Percentage	Current Funds	Projected Funds	Total Funds
Regional Mobility	80.00%	$975,000		$975,000
Grant Funds	**80.00%**	**$975,000**	$0	**$975,000**
Contractor's Funds	20.00%	$243,750	$0	$243,750
Total Project Cost	**100%**	**$1,218,750**	**$0**	**$1,218,750**

Budget: *Current State Funds reflect total funding appropriated by the Washington State Legislature for the 2025-2027 biennium. As applicable, Federal Funds are subject to availability of federal apportionments and obligation by the Federal Transit Administration (FTA).*

Section 2
Purpose of Agreement

A. The purpose of this AGREEMENT is for WSDOT to provide funds to the GRANTEE for public transportation services that meet the needs of persons in the State of Washington.

B. If this AGREEMENT includes any funding with federal funds, in addition to the requirements of Sections 1 through 34 of the AGREEMENT the GRANTEE will also comply with all requirements imposed by, or pursuant to 49 USC chapter 53, all other applicable federal laws, regulations and requirements and the requirements set forth in Exhibit I, Federal Provisions for this AGREEMENT that Includes Federal Funds (Grant Agreement), which is attached hereto and by this reference incorporated into this AGREEMENT, "Federal Provisions ."

Section 3
Scope of Project

The GRANTEE shall undertake and complete the Project described and detailed in **Section 1- Scope of Work**. The GRANTEE shall operate the service within the service area described in Section 1, in accordance with the terms and conditions of this AGREEMENT.

Section 4
Term of Agreement

The GRANTEE shall commence, perform, and complete the work identified under this AGREEMENT within the time defined in the caption space header titled "Term of Agreement" on this AGREEMENT regardless of the date of signature and execution of this AGREEMENT unless terminated as provided herein.

Section 5
General Compliance Assurance

The GRANTEE agrees to comply with all instructions as prescribed in the *WSDOT Public Transportation State Grant Programs Guidebook*, hereinafter referred to as the "Guidebook", and any amendments thereto, found at https://wsdot.wa.gov/business-wsdot/grants/public-transportation-grants/manage-your-public-transportation-grant which by this reference is incorporated herein as if fully set forth in this AGREEMENT.

Section 6
GRANTEE's Share of Project Costs

A. The Total Project Cost shall not exceed the amounts detailed in **Section 1**. The GRANTEE agrees to expend eligible funds, together with any GRANTEE's Funds allocated for the Project, in an amount sufficient to complete the Project. . If at any time the GRANTEE becomes aware that the cost of the Project will exceed or be less than the amount identified in **Section 1**, the GRANTEE shall notify WSDOT in writing within thirty (30) calendar days of making that determination. Nothing in **Section 6(A),** shall preclude the requirements specified in **Section 7 (B)** for payments at the end of the biennium.

B. **Minimum Match:** The GRANTEE is required to provide a minimum match of funds for the Project as identified in **Section 1**, indicated as GRANTEE's Funds.

Section 7
Reimbursement and Payment

A. Payment will be made by WSDOT on a reimbursable basis for actual costs and expenditures incurred while performing eligible direct and related indirect Project work during the life of the Project. Payment is subject to the submission to and approval by WSDOT of properly prepared invoices that substantiate the costs and expenses submitted by the GRANTEE for reimbursement. Failure to send in progress reports and financial information as required in **Section 9 –Reports** may delay payment. The GRANTEE shall submit an invoice detailing and supporting the costs incurred. Such invoices may be submitted no more than once per month and no less than once per year, during the course of this AGREEMENT. If approved by WSDOT, properly prepared invoices shall be paid by WSDOT within thirty (30) days of receipt of the invoice.

B. The GRANTEE shall submit an invoice for completed work in the same state fiscal year in which it was incurred. Pursuant to RCW 43.88.020(13) “fiscal year” is defined as the year beginning July 1st and ending the following June 30th. Reimbursement requests must be received no later than July 15 of the following state fiscal year. If the GRANTEE is unable to provide an invoice by this date, the GRANTEE shall provide an estimate of the charges to be billed so WSDOT may accrue the expenditures in the proper fiscal year. Any payment request received after the timeframe prescribed above will not be eligible for reimbursement.

Section 8
Assignments and Subcontracts

A. The GRANTEE shall submit to WSDOT a copy of any contract, amendment, or change order thereto pertaining to this Project for review and documentation. This includes any completed Project facilities and/or infrastructure under this AGREEMENT, or other actions obligating the GRANTEE in any manner with any third party with respect to its rights and responsibilities under this AGREEMENT, including any leasing and/or lending the Project or any part thereof to be used by anyone not under the GRANTEE’s direct supervision.

B. The GRANTEE agrees to include all applicable sections of the AGREEMENT such as **Section 5, Sections 8 through 20, and Section 27,** in each subcontract and in all contracts it enters into for the employment of any individual, procurement of any materials, or the performance of any work to be accomplished under this AGREEMENT.

Section 9
Anti – lobbying

A. It is WSDOT’s policy that no funds awarded through the agency to grantees can be used for lobbying activities.
B. GRANTEEs who receive an award through WSDOT shall certify on an annual basis that the awarded funds are not used for lobbying activities. This certification may be provided as part of the Certification & Assurances annual submittal.

Section 10
Reports

A. The GRANTEE shall prepare quarterly reports regarding services provided pursuant to this AGREEMENT and other related information as prescribed in the Guidebook, and any amendments thereto, whichever is applicable, or as requested by WSDOT. Due to Legislative and WSDOT reporting requirements, any required quarterly progress reports shall be submitted for the duration of the AGREEMENT period regardless of whether the underlying funding sources have been exhausted. Post-grant annual performance reporting may also be required as prescribed in the Guidebook. Those reports include, but are not limited to:
    1. Project Passenger Trips Provided
    2. Project Service Hours Provided
    3. Project Revenue Service Miles Provided
    4. Narrative Progress Report
    5. Financial Status/Summaries of the Project.

B. Failure to meet any of the above-identified report submittal timelines may result in the GRANTEE being considered to be in breach of contract and "Not In Good Standing" as defined in the Guidebook referenced in **Section 5 - General Compliance Assurance** of this agreement. Failure to meet the above-identified report submittal timelines may also prevent the GRANTEE from receiving future PT Rideshare grant funds in the next biennium.

Section 11
Energy Credit

To the extent GRANTEE receives any monies from the sale or disposition of energy credits, decarbonization credits, environmental credits, or any other monies through its participation of a like program, GRANTEE agrees to reinvest those monies into services and projects consistent with the STATE'S public transportation grant program. GRANTEE'S obligation to reinvest these monies under this provision shall be in an amount no less than the proportion of the STATE'S funding of this AGREEMENT.

Section 12
No Obligation by the State Government

No contract between the GRANTEE and its subGRANTEEs shall create any obligation or liability for WSDOT with regard to this AGREEMENT without WSDOT's specific written consent, notwithstanding its concurrence in, or approval of, the award of any contract or subcontract or the solicitations thereof.

Section 13
Personal Liability of Public Officers

No officer or employee of WSDOT shall be personally liable for any acts or failure to act in connection with this AGREEMENT, it being understood that in such matters they are acting solely as agents of WSDOT.

Section 14
Ethics

A. Relationships with Employees and Officers of WSDOT. The GRANTEE shall not extend any loan, gratuity or gift of money in any form whatsoever to any employee or officer of WSDOT, nor shall GRANTEE knowingly rent or purchase any equipment and materials from any employee or officer of WSDOT.

B. Employment of Former WSDOT Employees. The GRANTEE hereby warrants that it shall not engage on a full-time, part-time, or another basis during the period of this AGREEMENT, any professional or technical personnel who are or have been, at any time during the period of this AGREEMENT, in the employ of WSDOT without the written consent of WSDOT.

Section 15
Civil rights

The GRANTEE shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any WSDOT-assisted contract or in the administration of its public transportation services.

Section 16
Compliance with Laws and Regulations

A. The GRANTEE agrees to abide by all applicable state and federal laws and regulations including but not limited to, those concerning employment, equal opportunity employment, nondiscrimination assurances, project record keeping necessary to evidence compliance with such federal and state laws and regulations, and retention of all such records. The GRANTEE will adhere to all applicable nondiscrimination provisions in chapter 49.60 RCW.

B. Additionally, the GRANTEE agrees to comply, as applicable, with the following:
    1. SB 5974 Move Ahead Washington
    2. RCW 70A.02 Healthy Environmental for All (HEAL) ACT,
    3. RCW 70A. 65.260 Climate Commitment ACT, and
    4. Chapter 49.46 RCW – Minimum Wage Requirements & Labor Standards
    5. Chapter 43.21C RCW - State Environmental Policy Act (SEPA)
    6. Executive Order 21-02 Archeological and Cultural Resources

C. Except when a federal statute or regulation preempts state or local law, no provision of the AGREEMENT shall require the GRANTEE to observe or enforce compliance with any provision, perform any other act, or do any other thing in contravention of state or local law. If any provision or compliance with any provision of this AGREEMENT violates state or local law or would require the GRANTEE to violate state or local law, the GRANTEE agrees to notify WSDOT immediately in writing. Should this occur, WSDOT and the GRANTEE agree to make appropriate arrangements to proceed with or, if necessary, expeditiously, terminate the AGREEMENT.

Section 17
Environmental and Regulatory Requirements

The GRANTEE agrees to secure any necessary local, state, and federal permits and approvals, and comply with all applicable requirements of Chapter 43.21C RCW State Environmental Policy Act (SEPA). The GRANTEE agrees to comply with all applicable requirements of Executive Order 21-02, Archaeological and Cultural Resources, for all capital construction projects or land acquisitions not undergoing Section 106 review under the National Historic Preservation Act of 1966 (Section 106).

Section 18
Accounting Records

A. Project Accounts. The GRANTEE agrees to establish and maintain for the Project either a separate set of accounts or separate accounts within the framework of an established accounting system that can be identified with the Project. The GRANTEE agrees that all checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to the Project shall be clearly identified, readily accessible and available to WSDOT upon request, and, to the extent feasible, kept separate from documents not pertaining to the Project.

B. Documentation of Project Costs and Program Income. The GRANTEE agrees to support all allowable costs charged to the Project, including any approved services contributed by the GRANTEE or others, with properly executed payrolls, time records, invoices, contracts, or vouchers describing in detail the nature and propriety of the charges. The GRANTEE also agrees to maintain accurate records of all program income derived from implementing the Project.

Section 19
Audits, Inspection, and Retention of Records

Submission of Proceedings, Contracts, Agreements, and Other Documents. During the performance period of the Project and for six (6) years thereafter, the GRANTEE agrees to retain intact and to provide any data, documents, reports, records, contracts, and supporting materials relating to the Project as WSDOT may require. Project closeout does not alter these recording and record-keeping requirements. Should an audit, enforcement, or litigation process be commenced, but not completed, during the aforementioned six-year period then the GRANTEE's obligations hereunder shall be extended until the conclusion of that pending audit, enforcement, or litigation process.

A. **General Audit Requirements**. The GRANTEE agrees to obtain any other audits required by WSDOT at GRANTEE's expense. Project closeout will not alter the GRANTEE's audit responsibilities.

B. **Inspection**. The GRANTEE agrees to permit WSDOT and the State Auditor, or their authorized representatives, to inspect all Project work materials, payrolls, and other data, and to audit the books, records, and accounts of the GRANTEE and its subGRANTEEs pertaining to the Project. The GRANTEE agrees to require each third party to permit WSDOT, and the State Auditor or their duly authorized representatives, to inspect all work, materials, payrolls, and other data and records involving that third party contract, and to audit the books, records, and accounts involving that third party contract as it affects the Project.

Section 20
Labor Provisions

Overtime Requirements. No GRANTEE or subGRANTEE contracting for any part of the Project work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. The GRANTEE will comply with all applicable provisions of Title 49 RCW, Labor Regulations.

Section 21
Changed Conditions Affecting Performance

The GRANTEE hereby agrees to immediately notify WSDOT of any change in conditions or law, or of any other event, which may affect its ability to perform the Project in accordance with the provisions of this AGREEMENT.

Section 22
Coordination of Special Needs Transportation

It is the policy of WSDOT to actively support the coordination of special needs transportation in the state. As a condition of assistance, the GRANTEE is required to participate in local coordinated planning as led by GRANTEE's relevant Metropolitan Planning Organization (MPO) and/or Regional Transportation Planning Organization (RTPO). Persons with special transportation needs means those persons, including their personal attendants, who because of physical or mental disability, income status, or age are unable to transport themselves or purchase transportation.

Section 23
Remedies for Misuse or Noncompliance.

If WSDOT determines that the Project has been used in a manner materially different from **Section 1- Scope of Work**, WSDOT may direct the GRANTEE to repay WSDOT the State-funded share of the Project. WSDOT may also withhold payments should it determine that the GRANTEE has failed to materially comply with any provision of this AGREEMENT.

Section 24
Disputes

A. **Disputes.** Disputes, arising in the performance of this AGREEMENT, which are not resolved by agreement of the PARTIES, shall be decided in writing by the WSDOT Public Transportation Division Assistant Director or designee. This decision shall be final and conclusive unless within ten (10) days from the date of the GRANTEE's receipt of WSDOT's written decision, the GRANTEE mails or otherwise furnishes a written appeal to the Director of the Public Transportation Division or the Director's designee. The GRANTEE's appeal shall be decided in writing by the Director of the Public Transportation Division within thirty (30) days of receipt of the appeal by the Director of the Public Transportation Division or the Director's designee. The decision shall be binding upon the GRANTEE and the GRANTEE shall abide by the decision.

B. **Performance During Dispute**. Unless otherwise directed by WSDOT, the GRANTEE shall continue performance under this AGREEMENT while matters in dispute are being resolved.

C. **Claims for Damages**. Should either PARTY to this AGREEMENT suffer injury or damage to person, property, or right because of any act or omission of the other PARTY or any of that PARTY's employees, agents or others for whose acts it is legally liable, a claim for damages therefore shall be made in writing to such other PARTY within thirty (30) days after the first observance of such injury or damage.

D. **Rights and Remedies**. All remedies provided in this AGREEMENT are distinct and cumulative to any other right or remedy under this document or afforded by law or equity, and may be exercised independently, concurrently, or successively and shall not be construed to be a limitation of any duties, obligations, rights and remedies of the PARTIES hereto. No action or failure to act by WSDOT or the GRANTEE shall constitute a waiver of any right or duty afforded any of them under this AGREEMENT, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

E. **Venue and Process** In the event that either PARTY deems it necessary to institute legal action or proceedings to enforce any right or obligation under this AGREEMENT, the PARTIES hereto agree that any such action shall be initiated in the Superior Court of the State of Washington situated in Thurston County. The PARTIES agree that the laws of the State of Washington shall apply.

Section 25
Termination

A. Termination for Convenience. WSDOT and/or the GRANTEE may suspend or terminate this AGREEMENT, in whole or in part, and all or any part of the financial assistance provided herein, at any time by written notice to the other PARTY. WSDOT and the GRANTEE shall agree upon the AGREEMENT termination provisions including but not limited to the settlement terms and conditions, and in the case of partial termination the portion to be terminated. Written notification must set forth the reasons for such termination, the effective date, and in case of a partial termination the portion to be terminated. However if, in the case of partial termination, WSDOT determines that the remaining portion of the award will not accomplish the purposes for which the award was made, WSDOT may terminate the award in its entirety. The PARTIES may terminate this AGREEMENT for convenience for reasons including, but not limited to, the following:
    1. The requisite funding becomes unavailable through the failure of appropriation or otherwise;
    2. WSDOT determines, in its sole discretion, that the continuation of the Project would not produce beneficial results commensurate with the further expenditure of funds;
    3. The GRANTEE is prevented from proceeding with the Project as a direct result of an Executive Order of the President with respect to the prosecution of a war or in the interest of national defense; or an Executive Order of the President or Governor of the State with respect to the preservation of energy resources;
    4. The GRANTEE is prevented from proceeding with the Project by reason of a temporary, preliminary, special, or permanent restraining order or injunction of a court of competent jurisdiction where the issuance of such order or injunction is primarily caused by the acts or omissions of persons or agencies other than the GRANTEE; or
    5. The State Government determines that the purposes of the statute authorizing the Project would not be adequately served by the continuation of financial assistance for the Project;

B. In the case of termination for convenience under subsections A.1-5 above, WSDOT shall reimburse the GRANTEE for all costs payable under this AGREEMENT that the GRANTEE

properly incurred prior to termination. The GRANTEE shall promptly submit its claim for reimbursement to WSDOT. If the GRANTEE has any property in its possession belonging to WSDOT, the GRANTEE will account for the same, and dispose of it in the manner WSDOT directs.

C. Termination for Default. WSDOT may suspend or terminate this AGREEMENT for default, in whole or in part, and all or any part of the financial assistance provided herein, at any time by written notice to the GRANTEE, if the GRANTEE materially breaches or fails to perform any of the requirements of this AGREEMENT, including:

1. Takes any action pertaining to this AGREEMENT without the approval of WSDOT, which under the procedures of this AGREEMENT would have required the approval of WSDOT;
2. Jeopardizes its ability to perform pursuant to this AGREEMENT, United States of America laws, Washington state laws, or local governmental laws under which the GRANTEE operates;
3. Fails to make reasonable progress on the Project or violates this AGREEMENT in a way that endangers substantial performance of the Project; or
4. Fails to perform in the manner called for in this AGREEMENT or fails to comply with, or is in material violation of, any provision of this AGREEMENT. WSDOT shall serve a notice of termination on the GRANTEE setting forth the manner in which the GRANTEE is in default hereunder. If it is later determined by WSDOT that the GRANTEE had an excusable reason for not performing, such as events which are not the fault of or are beyond the control of the GRANTEE, such as a strike, fire or flood, WSDOT may: (a) allow the GRANTEE to continue work after setting up a new delivery of performance schedule, or (b) treat the termination as a termination for convenience.

D. WSDOT, in its sole discretion may, in the case of a termination for breach or default, allow the GRANTEE ten (10) business days, or such longer period as determined by WSDOT, in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions. If the GRANTEE fails to remedy to WSDOT's satisfaction the breach or default within the timeframe and under the conditions set forth in the notice of termination, WSDOT shall have the right to terminate this AGREEMENT without any further obligation to the GRANTEE. Any such termination for default shall not in any way operate to preclude WSDOT from also pursuing all available remedies against the GRANTEE and its sureties for said breach or default.

E. In the event that WSDOT elects to waive its remedies for any breach by the GRANTEE of any covenant, term or condition of this AGREEMENT, such waiver by WSDOT shall not limit WSDOT's remedies for any succeeding breach of that or of any other term, covenant, or condition of this AGREEMENT.

F. If this AGREEMENT is terminated, whether for convenience or for default, before the specified end date set forth in the caption header, “Term of Agreement”, WSDOT and the GRANTEE shall execute an amendment to this AGREEMENT identifying the termination date and the reason for termination.

Section 26
Forbearance by WSDOT Not a Waiver

Any forbearance by WSDOT in exercising any right or remedy hereunder, or otherwise afforded by applicable law, shall not be a waiver of or preclude the exercise of any such right or remedy.

Section 27
Lack of Waiver

In no event shall any WSDOT payment of grant funds to the GRANTEE constitute or be construed as a waiver by WSDOT of any GRANTEE breach, or default. Such payment shall in no way impair or prejudice any right or remedy available to WSDOT with respect to any breach or default.

Section 28
Limitation of Liability

A. The GRANTEE shall indemnify, defend, and hold harmless WSDOT, its agents, employees, and officers and process and defend at its own expense any and all claims, demands, suits at law or equity, actions, penalties, losses, damages, or costs (hereinafter referred to collectively as "claims"), of whatsoever kind or nature brought against WSDOT, arising out of, in connection with or incident to the execution of this AGREEMENT and/or the GRANTEE's performance or failure to perform any aspect of this AGREEMENT. This indemnity and defense provision applies to all claims against WSDOT, its agents, employees, and officers arising out of, in connection with, or incident to the negligent acts or omissions of the GRANTEE, its agents, employees, officers, and subGRANTEEs of any tier. Provided, however, that nothing herein shall require the GRANTEE to indemnify, defend, and hold harmless or defend WSDOT, its agents, employees, or officers to the extent that claims are caused by the sole negligent acts or omissions of WSDOT, its agents, employees or officers; and provided further that if such claims result from the concurrent negligence of (a) the GRANTEE its employees, agents, officers or GRANTEEs and (b) the STATE, its employees or authorized agents, or involves those actions covered by RCW 4.24.115, the indemnity and defense provisions provided herein shall be valid and enforceable only to the extent of the negligence of the GRANTEE, its employees, officers, authorized agents, and/or GRANTEEs. The indemnification and hold harmless provision shall survive termination of this AGREEMENT.

B. The GRANTEE shall be deemed an independent GRANTEE for all purposes, and the employees of the GRANTEE or its subGRANTEEs and the employees thereof, shall not in any manner be deemed to be the employees of WSDOT.

C. The GRANTEE agrees that its obligations under this AGREEMENT extend to any claim, demand, and/or cause of action by, or on behalf of its employees or agents while performing under this AGREEMENT. For this purpose, the GRANTEE, by MUTUAL NEGOTIATION, hereby waives any immunity that would otherwise be available to it against such claims under the Industrial Insurance provisions in Title 51 RCW.

D. In the event either the GRANTEE or WSDOT incurs attorney's fees, costs or other legal expenses to enforce the provisions of this section of this AGREEMENT against the other PARTY, all such fees, costs and expenses shall be recoverable by the prevailing PARTY.

Section 29
Agreement Modifications

Either PARTY may request changes to this AGREEMENT. Any changes to the terms of this AGREEMENT must be mutually agreed upon and incorporated by written amendment to this AGREEMENT. Such written amendment to this AGREEMENT shall not be binding or valid unless signed by the persons authorized to bind from each of the PARTIES. Provided, however, that changes to the federal award identification number, DUNS, project title, federal ID number, CFDA number, milestones, PIN the contact person of either PARTY, or dollar amount changes that do not affect the Project total cost, will not require a written amendment, but will be approved and documented by WSDOT through an administrative revision. WSDOT shall notify the GRANTEE of the revision in writing.

Section 30
WSDOT Advice

The GRANTEE bears complete responsibility for the administration and success of the Project as defined by this AGREEMENT and any amendments thereto. If the GRANTEE solicits advice from WSDOT on problems that may arise, the offering of WSDOT advice shall not shift the responsibility of the GRANTEE for the correct administration and success of the Project, and WSDOT shall not be held liable for offering advice to the GRANTEE.

Section 31
Subrogation

A. Prior to Subrogation. WSDOT may require the GRANTEE to take such reasonable action as may be necessary or appropriate to preserve the GRANTEE's right to recover damages from any person or organization alleged to be legally responsible for injury to the Project Equipment as defined in the scope of work or other property in which WSDOT has a financial interest.
B. Subrogation. WSDOT may require the GRANTEE to assign to WSDOT all rights of recovery against any person or organization for loss, to the extent of WSDOT's loss. Upon assignment, the GRANTEE shall execute, deliver, and do whatever else reasonably necessary to secure WSDOT's rights. The GRANTEE shall do nothing after any loss to intentionally prejudice the rights of WSDOT.
C. Duties of the GRANTEE. If WSDOT has exercised its right of subrogation, the GRANTEE shall cooperate with WSDOT and, upon WSDOT's request, assist in the prosecution of suits and enforce any right against any person or organization who may be liable to WSDOT due to damage to Project Equipment. The GRANTEE shall attend hearings and trials as requested by WSDOT, assist in securing and giving evidence as requested by WSDOT, and obtain the attendance of witnesses as requested by WSDOT.

Section 32
Counterparts

This AGREEMENT may be simultaneously executed in several counterparts, each of which shall be deemed to be an original having identical legal effect.

Section 33
Complete Agreement

This document contains all covenants, stipulations, and provisions agreed upon by the PARTIES. No agent or representative of WSDOT or the GRANTEE has the authority to make, and neither WSDOT nor the GRANTEE shall be bound by or be liable for, any statement, representation, promise or agreement not set forth herein or made by written amendment hereto.

Section 34
Severability

If any covenant or provision of this AGREEMENT shall be adjudged void, such adjudication shall not affect the validity or obligation of performance of any other covenant or provision, or any part thereof, which in itself is valid if such remainder conforms to the terms and requirements of applicable law and the intent of this AGREEMENT. No controversy concerning any covenant or provision shall delay the performance of any other covenant or provision except as herein allowed.

Section 35
Order of Precedence

Any conflict or inconsistency in this AGREEMENT and its attachments will be resolved by giving documents precedence in the following order:

1. Federal Law
2. Exhibit 1, Federal Provisions, If applicable
3. State law
4. This AGREEMENT
5. The Consolidated Operating Guidebook

Section 36
Execution

This AGREEMENT is executed by the Director, Public Transportation Division, State of Washington, Department of Transportation, or the Director's designee, not as an individual incurring personal obligation and liability, but solely by, for and on behalf of the State of Washington, Department of Transportation, in the capacity as Director, Public Transportation Division, or as a designee.

Section 37
Binding Agreement

The undersigned acknowledge that they are authorized to execute this AGREEMENT and bind their respective agency(ies) and or entity(ies) to the obligations set forth herein.

IN WITNESS WHEREOF, the PARTIES hereto have executed this AGREEMENT on the day and year last written below.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION	GRANTEE
Authorized Representative Public Transportation Division	Authorized Representative
	Title
	Print Name
Date	Date

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-444
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Planning and Community Development	Carol Helland	425-556-2107
Parks	Loreen Hamilton	425-556-2336

DEPARTMENT STAFF:

Planning and Community Development	Seraphie Allen	Deputy Director
Finance	David Amble	Real Property Manager
Parks	David Tuchek	Deputy Director

TITLE:
Bellwether Housing (Prisma) Purchase and Sale Agreement

OVERVIEW STATEMENT:
The City of Redmond is seeking to enter into a purchase and sale agreement with Bellwether Housing for the acquisition of a commercial property on the ground floor of the Prisma affordable housing project. This project is located adjacent to the Overlake light rail station and will contain two additional commercial spaces and 328 affordable housing units. Funds for the purchase have been identified within the City's Capital Improvement Program, and City staff have applied for federal and state grants to support the acquisition and tenant improvements. The City was successful in receiving a state grant earmark.

Prisma will be constructed on King County Parcel 644895-0020 (Parcel A), a 2.4-acre property situated south, and adjacent to Sound Transit's 2 Line Overlake Village Station. Sound Transit and Bellwether Housing are negotiating the sale and transfer of the Parcel. The Prisma includes three commercially leased or owned units on the ground floor. Bellwether Housing and the City of Redmond Planning & Community Development and Parks Departments have discussed the sale of a 1,600 sf unit in the building to the City, intended for a Small Business Support Center and City-Hall annex, where businesses and residents can receive services in the Overlake Neighborhood.

As part of the development conditions for the Prisma, the City will be deeded by dedication King County Parcel 644895-0030 (Parcel B), a 16,300+ sf parcel. After the dedication of Parcel B, Bellwether will be granted a temporary construction permit to use Parcel B as a staging area during the construction of the Prisma. At the end of the construction phase, Bellwether will complete frontage improvements (sidewalks, curbs, and roadway paving) to Parcel B prior to returning the Parcel back to the City. The City envisions the use of Parcel B as a dedicated open space, suitable for small-scale community use.

In addition to the purchase of the 1,600 sf commercial space and the dedication of a 16,000 sf open space, the City will be deeded the right-of-way on Parcel A, again with frontage improvements constructed by Bellwether at the conclusion of the Prisma project. Bellwether will grant the City a sidewalk easement and a utility easement on Parcel A. Sound

Transit and Bellwether are also finalizing access rights and other essential easements needed by Sound Transit across Parcel B to access the 2 Line's rail corridor from the public right of way (Shen Street).

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  Parks, Arts, Recreation, Culture, and Conservation (PARCC) Plan
  Economic Development Strategic Plan:
    - Action 1B.3. Serve as a liaison to advocate for local business needs to the City of Redmond internal departments and regional partners.
    - Action 2A.1. Expand small business engagement to further develop and communicate policies and programs aimed at assisting small- and mid-sized businesses in Redmond.
    - Action 2A.1. Expand small business engagement to further develop and communicate policies and programs aimed at assisting small- and mid-sized businesses in Redmond.
    - Develop a multilingual small business toolkit, including handbooks on starting a business and associated tax, legal, and permit requirements in Redmond and King County.
    - Work with partners to create a one-stop resource for entrepreneurs to learn about business assistance resources and programs including advising on access to financial support.
- **Required:**
  N/A
- **Council Request:**
  N/A
- **Other Key Facts:**
  N/A

OUTCOMES:

Approval of the purchase and sale allows the City of Redmond to acquire coveted commercial space in the Overlake Neighborhood right next to light rail. Below are outlined some of the potential benefits:

- **City services:** Potential for increased access to city services, such as customer service, translation services, bill pay, mobile integrated health, Police desk, or other city services, along with rotating art.
- **Co-location:** 1,600 sq commercial condo on ground floor of transit-oriented development mixed-used project led by Bellwether Housing (328 low to moderate income homes); adjacent to a planned multicultural small business hub.
- **Multicultural:** In the Overlake Intercultural District. More than 42% of our residents are foreign born and 46.5% speak a language other than English at home.
- **Multimodal Access:** Across the street from the Overlake Village light rail station.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  N/A
- **Outreach Methods and Results:**
  N/A
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:

$618,000.00

Purchase Price - $475,350
Tenant improvements (est.) - $142,650

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
0000345 - General Government/Facilities CIP

Budget Priority:
Vibrant and Connected

Other budget impacts or additional costs: ☒ **Yes** ☐ **No** ☐ **N/A**
If yes, explain:
The City is estimating responsibility for annual maintenance fees, currently scheduled at $6,551.00 per year starting in 2028.

If and when major maintenance actions are required to protect the integrity of the building, the Condominium Association will be expected to issue special assessments (fees) to the condominium owners.

Funding source(s):
CIP and Grant

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
5/6/2025	Committee of the Whole - Planning and Public Works	Provide Direction
5/20/2025	Business Meeting	Approve

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/2/2025	Business Meeting	Approve

Time Constraints:
Bellwether Housing has submitted the project to the Washington State Housing Finance Commission for finance closing prior to the end of October to meet public funding award deadlines - WSHFC requires Bellwether to show commitments of financial sources prior to final approval end of September. The completion of a purchase and sale agreement supports Bellwether's critical path to receive the tax credit finance allocation to close on the project. It would also impact the City's ability to secure the space.

ANTICIPATED RESULT IF NOT APPROVED:
If not approved, the City of Redmond would be unable to move forward in purchasing the commercial space within the Prisma project and Bellwether Housing would take on additional costs threating the viability of the overall project.

ATTACHMENTS:
Attachment A - Purchase and Sale Agreement with Bellwether Housing-Draft

CONDOMINIUM UNIT

PURCHASE AND SALE AGREEMENT

UNIT 5

This Condominium Unit Purchase and Sale Agreement (the "Agreement") is entered into between **CITY OF REDMOND**, a Washington municipal corporation (referred to in this agreement as "Purchaser"), and **BW OVERLAKE LLLP**, a Washington limited liability limited partnership, (referred to in this agreement as "Seller"). The "Effective Date" of this Agreement is _____, 2025.

NOW, THEREFORE, Seller and Purchaser agree as follows:

1. PURCHASE AND SALE

1.1 Unit 5.

Subject to the terms and conditions of this Agreement, Seller hereby agrees to sell and convey to Purchaser, and Purchaser hereby agrees to purchase, Unit 5 of Prisma, a Condominium ("Unit 5"), which will consist of a portion of that real property located at 2888 Da Vinci Avenue NE, Redmond, Washington and legally described in **Exhibit A** attached hereto (the "Property"), together with an undivided interest in the Common Elements and any Limited Common Elements appurtenant to Unit 5 (including, without limitation, two parking stalls), as set out and established in the Condominium Declaration for Prisma, a Condominium, recorded in King County, Washington. Unit 5 is described in more detail in paragraph 1.2 below. No personal property is included in the sale of Unit 5.

1.2 Construction of Improvements and Creation of Condominium.

1.2.1 Seller owns the Property and intends to construct on the Property certain improvements, including a multi-use building with (i) approximately 328 residential dwelling units and related amenities (the "Housing Unit"), (ii) 16 parking stalls located within the Parking Garage (defined below) on the Property ("Unit 2"), (iii) approximately 1,644 square feet of space to be used for pedestrian oriented commercial space ("Unit 3"), (iv) approximately 10,395 square feet of space to be used for the operation of a multi-use commercial space ("Unit 4"), and (v) Unit 5, which is approximately 1,862 square feet of space for the operation of city services as the Overlake Village Annex (collectively, the Housing Unit, Unit 2, Unit 3, Unit 4, and Unit 5, are the "Improvements" or the "Project"), all as more particularly described in those plans and specifications prepared by Perkins Eastman (the "Project Architect") as Project No. 0099650 and dated [_____] (the "Plans and Specifications"). Seller intends to construct a parking garage on the Property (the "Parking Garage"), which will contain approximately 121 parking stalls, two of which will be allocated to Unit 5 as limited common elements as more particularly described in the Declaration (defined below).

Seller shall complete Unit 5 in shell condition pursuant to the Plans and Specifications (the "Shell Condition") and schedule of values attached to the Seller's construction contract, as approved by Purchaser. Purchaser shall be responsible for all furniture, fixtures, and equipment, and the design, permitting, financing and construction of the Tenant Improvements (as defined below) of Unit 5 at its sole cost and expense.

1.2.2 Upon or prior to the completion of the construction of the Improvements, Seller intends to subject the Property, including the Improvements, to a condominium regime (the "Condominium") pursuant to which the Property will be divided into five separate legal parcels or condominium units: the Housing Unit, Unit 2, Unit 3, Unit 4, and Unit 5 (each, a "Unit" and collectively, the "Units"). A schematic showing the approximate horizontal dimensions of the Units is attached hereto as **Exhibit B**.

The Condominium will be governed by that Condominium Declaration for Prisma, a Condominium, the form of which has been agreed to by Seller and Purchaser and is attached hereto as **Exhibit C** (the "Declaration"). The governing body of the Condominium will be Prisma Condominium Association, governed by the form of articles of incorporation and bylaws attached hereto as **Exhibit D** (the "Association Documents"). Prior to finalizing, executing and/or recording the Declaration, the Condominium map (the "Map"), the Association Documents or any other documents creating or governing the Condominium, Purchaser, as a condition precedent to any of Purchaser's obligations hereunder, shall have approved any material changes to the same**,** which approval will not be unreasonably conditioned, withheld or delayed. Purchaser shall not withhold or delay approval of the Map substantially consistent with the terms of this Agreement, including the Exhibits hereto, the Plans and Specifications, and any change orders approved by Purchaser hereunder. If Purchaser does not respond with specific requested changes to the proposed Map within fourteen (14) days of receipt, Purchaser shall be deemed to have approved the proposed Map. All documents necessary to form and govern the Condominium, including but not limited to the Declaration, the Association Document, and the Map for the Condominium, shall be referred to herein as the "Condominium Documents".

1.2.3 Throughout the period of time during which the Improvements are being constructed, Seller shall arrange to have periodic meetings not less than monthly with the general contractor at which all proposed change orders and their impact on the Budget (defined below) shall be discussed and finally approved or rejected. Purchaser shall designate an individual to serve as Purchaser's construction representative ("Purchaser's Representative"). Purchaser's Representative shall be notified of the time, location and date of such meetings and shall have the right to attend and participate in all such meetings. Seller shall provide to Purchaser's Representative all development timelines and reports relating to the construction work for the Project. Seller shall provide updates on project design and budget upon request from Purchaser.

1.2.4 Purchaser and Seller each acknowledge that the Improvements are being constructed pursuant to that development budget agreed to by both Purchaser and Seller attached hereto as **Exhibit E** (the "Budget"). The Purchaser shall work proactively and collaboratively with the Seller to keep Unit 5's allocated share of construction costs within the Budget. The Budget includes both a hard cost and soft cost contingency. Seller shall provide Purchaser with copies of all construction change directives, proposed change orders or final change orders that increase or decrease the cost of Unit 5. No consent of Purchaser shall be required for change

orders that do not exceed available contingency and that do not increase the Budget. If unanticipated cost increases occur that would increase the Budget, the Purchaser shall work collaboratively with the Seller to identify value engineering changes to keep construction costs within the Budget. Purchaser shall respond to a request for approval of proposed increase to the Budget within five business days of receipt so as not to delay the orderly progression of the construction of the Improvements. If Purchaser disapproves a proposed increase to the Budget, Seller shall have five business days of receipt of Purchaser's written notice of disapproval to respond with a revised proposal to Purchaser. Purchaser shall respond to a revised request for approval of proposed increase to the Budget within five business days of receipt thereof. Failure of Purchaser to respond in writing to a proposed change within the specified time period shall be deemed approval by Purchaser of the proposed change.

1.3 Legal Descriptions.

Purchaser and Seller hereby authorize escrow agent to insert over their signatures the correct legal description of the Property, or to correct the legal description previously entered if erroneous or incomplete. The parties expressly waive any right to assert or claim that this Agreement is void or voidable for failure to initially set forth in it the full legal description of the real property to which it pertains. The parties agree that the Title Company's attachment of an exhibit to this Agreement setting forth the complete legal description of Unit 5 is authorized and directed by Seller and Purchaser, and shall for all legal purposes relate back to the date of this Agreement.

2. PURCHASE PRICE/CONSIDERATION

2.1 Purchase Price.

The Purchase Price for Unit 5 attributed to (a) hard construction costs is based on actual (budgeted) costs per square foot and (b) soft costs is based on a prorata allocation of the soft costs for the Improvements based on the Relative Square Footage Allocation Methodology (defined below). Seller and Purchaser agree that the Purchase Price paid by Purchaser is intended to include the total development costs for the construction of the shell of Unit 5, determined by the amount set forth in the Budget, which includes a pro rata allocation of the land, design and other soft costs, fees, loan fees and interest, construction costs and other typical costs associated with construction and completion of commercial improvements.

As of the date of this Agreement, the Budget currently includes a total cost of $[475,350] for Unit 5 (the "Initial Purchase Price"). The Initial Purchase Price shall be increased to account for change orders and/or Budget revisions that have been agreed to in writing by Purchaser as provided in Section 2.3 below or shall be reduced to the extent of cost savings attributable to Unit 5 only. The Initial Purchase Price, as increased or reduced as set forth herein, shall be referred to herein as the "Purchase Price". For the avoidance of doubt, any increase in costs for the construction of Unit 5 for changes requested by Purchaser shall be solely borne by Purchaser. Both Parties acknowledge that should the Purchase Price for Unit 5 increase due to factors beyond Seller's control, or if changes are requested by Purchaser prior to occupancy that add costs above the Budget, then Purchaser shall be solely responsible for such costs.

2.2 Payment of Purchase Price.

The Purchase Price shall be paid as follows:

2.2.1 On or before the date that Seller closes on the financing for the construction of the Housing Unit ("Construction Finance Closing"), Purchaser shall deliver to the Escrow Holder (defined below) an earnest money deposit of $180,000 (the "Earnest Money"). The Earnest Money shall be credited toward the Purchase Price at Closing and nonrefundable to Purchaser except in the event of Seller's default or as otherwise provide hereunder.

2.2.2 The Purchase Price, less the Earnest Money, shall be paid at Closing.

2.3 Adjustments to Purchase Price.

2.3.1 The Budget allocates hard and soft costs related to the construction of the Improvements and the acquisition of the Property between all of the Units. The Purchase Price for Unit 5 is the sum of three components: (1) direct development and construction costs that are solely attributable to Unit 5, (2) shared costs based on definable criteria, i.e. area or usage, and (3) shared costs that are based on the relative square footage of all of the Units. The relative square footage allocation for Unit 5 is [___%] (the "Relative Square Footage Allocation Methodology"). Purchaser and Seller acknowledge and agree that any change orders not related solely to a particular Unit or increases in soft costs not related solely to a particular Unit shall be allocated based on, if feasible, a definable criteria, i.e. area or usage, and if not otherwise allocable, based on the Relative Square Footage Allocation Methodology. Purchaser and Seller acknowledge and agree that the Budget may be revised if actual costs exceed budgeted costs.

2.3.2 At least fourteen (14) days prior to Closing, Seller shall deliver to Purchaser a Budget reconciliation with actual expenditures to date for each Budget line item for Unit 5.

2.4 Purchaser's Improvements to Unit 5.

2.4.1 Purchaser has retained [Perkins Eastman] to serve as the "TI Architect" for the preparation of preliminary and final working architectural and engineering plans and specifications ("TI Plans") for the Purchaser's interior improvements to Unit 5 (the "Tenant Improvements"). Purchaser shall not change the TI Architect without Seller's prior written approval. The TI Plans shall be subject to Purchaser's approval, which approval shall not be unreasonably withheld or delayed. Purchaser agrees to, and does hereby, assume full and complete responsibility to ensure that Purchaser's Tenant Improvements and the TI Plans are adequate to fully meet the permitting requirements of the City of Redmond and any other jurisdiction with regulatory authority over the Property, as well as the needs and requirements of Purchaser's intended operations of its business within Unit 5.

2.4.2 Purchaser shall apply for all governmental approvals and building permits related to the TI Plans. Subject to satisfaction of all conditions precedent and subsequent to its obligations under this Section 2.4, Purchaser shall thereafter enter into a written agreement ("TI Construction Contract") with a licensed general contractor ("TI Contractor") to construct and install the Tenant Improvements. Purchaser shall require TI Contractor to name Seller and Seller's lenders and equity investor as additional insureds on insurance policies required under the TI Construction

Contract. Purchaser shall obtain Seller's approval of the TI Construction Contract and shall deliver or cause to be delivered to Seller all insurance policies required under the TI Construction Contract prior to commencement of construction of the Tenant Improvements. The provisions of this Section 2.4.2 shall survive Closing.

2.4.3 Purchaser agrees not to proceed to begin construction on the Tenant Improvements ("TI") until construction of the Housing Unit is complete and the Project has received its certificate of occupancy. Furthermore, prior to commencing construction of the Tenant Improvements, Purchaser must notify Seller in writing of the date Purchaser desires to commence construction and Seller must provide written approval of such date in writing, which approval shall be granted within five business days unless a significant conflict with scheduled work on another Unit will prevent commencement of work by the TI Contractor on the proposed date. A "significant conflict" in the preceding sentence is a conflict which in the determination of the Seller's general contractor or the general contractor of the applicable Unit will have a material adverse effect on the schedule for completion of the Improvements. In the case of such a conflict, within five business days, Seller shall specify the earliest possible subsequent date upon which the TI Contractor may begin the Tenant Improvements. After Closing, Purchaser shall control access to Unit 5, which access shall not be unreasonably denied to the Seller's general contractor if such access is required by Seller's general contractor. Purchaser shall fully cooperate with Seller and Seller's general contractor to obtain any governmental approvals, including certificates of occupancy, for the Improvements. The provisions of this Section 2.4.3 shall survive Closing.

2.5 Escrow Holder.

First American Title Insurance Company ("Escrow Holder" in its capacity as escrow holder and "Title Company" in its capacity as title insurer) has been designated as Escrow Holder hereunder by mutual agreement of Seller and Purchaser. Within five (5) days of the Effective Date of this Agreement, Escrow Holder shall open a closing escrow for the benefit of Purchaser and Seller in accordance with the terms of this Agreement. The following individual shall serve as escrow officer for Escrow Holder:

Amanda Johnson
First American Title Insurance Company
National Commercial Services Division
920 Fifth Avenue, Suite 1200
Seattle, WA 98104
Direct 206-615-3118
E-mail amjohnson@firstam.com

3. TITLE POLICY AND DUE DILIGENCE

3.1 Title Policy.

3.1.1 Prior to executing this Agreement, Purchaser has reviewed a title commitment for title insurance for the Property, included in **Exhibit F**, attached hereto, and the exception documents that are identified in it ("Land Preliminary Commitment"). All such exceptions in the Land Preliminary Commitment shall be deemed "Land Permitted Exceptions." Within twenty

(20) days of creation of the Condominium, Seller will order and have delivered to Purchaser a preliminary commitment for title insurance for Unit 5 issued by the Title Company, including complete and legible copies of all exceptions and encumbrances noted thereon (the "Unit Preliminary Commitment"). Purchaser shall have ten (10) days after receipt of the Unit Preliminary Commitment to advise Seller in writing of any encumbrances, restrictions, easements or other matters in the Unit Preliminary Commitment (collectively "Unit Exceptions") to which Purchaser objects (the "Disapproved Unit Exceptions"). Disapproved Unit Exceptions shall not include the Unit Permitted Exceptions (as defined below). All Unit Exceptions related to Seller's financing of the Housing Unit and all monetary encumbrances other than non-delinquent ad valorem property taxes shall be deemed to be Disapproved Unit Exceptions and shall be removed by Seller at the Unit Closing. All Unit Exceptions to which Purchaser does not object in writing within the ten (10) day period shall be deemed accepted by Purchaser. Any right of way dedications, utility easements granted by Seller or transportation mitigation plan exception necessary for the development of the Project shall be "Unit Permitted Exceptions" hereunder. Purchaser acknowledges and agrees that Seller's construction on the Property with respect to the Housing Unit and other Units' improvements will be ongoing, retainage shall not have been paid to the general contractor and the owner's policy provided by the Title Company to Purchaser will be subject to a general exception for mechanic's liens and such exception shall be a "Unit Permitted Exception" hereunder. Any notices of claim of lien or filed liens shall be a Disapproved Unit Exception.

3.1.2 Seller shall have ten (10) days after receipt of Purchaser's notice to notify Purchaser, in writing, of its agreement to cure or remove any of the Disapproved Unit Exceptions. Seller shall remove or cure before the Unit Closing the Disapproved Unit Exceptions.

3.1.3 The term "Unit Permitted Exceptions" as used herein means: (a) the exceptions accepted or deemed accepted by Purchaser as provided above, including the Land Permitted Exceptions; (b) the lien of real estate taxes and assessments payable in the calendar year of closing which shall be prorated to the Closing as provided in Section 7.5 of this Agreement; (c) the exceptions contained in the deed from Purchaser to Seller delivered in connection with Seller's acquisition of the real property underlying the Condominium from Purchaser; (d) the Declaration, Map and bylaws of the Association and right to lien for assessments thereunder; and (e) exceptions related to easements necessary for the construction of the Improvements and the delivery of utilities thereto.

3.1.4 At Closing, Seller will cause the Title Company to issue to Purchaser an ALTA standard coverage owner's policy of title insurance (the "Unit Title Policy"), in the amount of the Purchase Price, insuring Purchaser against loss or damage arising from defects in title to Unit 5 other than the Unit Permitted Exceptions. Seller will pay the premium for a standard coverage owner's policy of title insurance in the amount of the Purchase Price. If Purchaser desires extended coverage or any endorsements to such policy, Purchaser shall be solely responsible for paying the additional premium for extended coverage or any endorsements, and paying for the cost of an ALTA survey, if required by the Title Company, in connection with issuance of an extended owner's policy of title insurance.

3.2 Entry onto the Property.

Prior to Closing, Seller grants to Purchaser and Purchaser's contractors, employees, agents and consultants a non-exclusive license to enter upon Unit 5 and related portions of the Property and Improvements at reasonable hours for the purpose of inspecting, at Purchaser's expense, the construction of Unit 5 and Improvements. Seller agrees to cooperate reasonably with Purchaser in its inspections, although with no out-of-pocket cost to Seller. Purchaser agrees to indemnify, defend and to hold Seller, Seller's agents, employees, members and partners, and the Property, harmless from any losses, costs, damages, claims, or liabilities, including but not limited to damage to property or person, mechanics' liens and attorneys' fees, arising out of any negligent action or willful misconduct by Purchaser or its contractors or agents in connection with Purchaser's entry upon the Property. Purchaser shall promptly repair any damage to the Property caused by Purchaser's entry onto the Property and shall restore the Property and Improvements to its condition prior to entry. Purchaser's obligations under this subsection shall survive the termination or closing of this Agreement.

3.3 Purchaser's Investigation of the Property.

Prior to executing this Agreement, Purchaser has reviewed and approved the Plans and Specifications. Any reports, surveys, plans, specifications, and other documentation concerning the Property delivered to Purchaser by Seller have been provided as a courtesy only. Seller does not warrant that any information contained in such documentation is correct. Seller shall not be held liable for any inaccurate information therein. Purchaser acknowledges that, except as otherwise set forth in Subsection 6.1 of this Agreement, Seller has not made any other representations or warranties of any kind upon which Purchaser is relying, and specifically disclaims any warranty, as to matters concerning the Property, including without limitation, the condition of the Property, except warranties contained (or by law included) in the deed; the condition of title to the Property; the existence of hazardous materials at the Property; the habitability, merchantability, fitness, suitability, value or adequacy of the Property for any particular purpose; current economic conditions, economic projections or market studies with respect to the Property; development rights; taxes; bonds; covenants, conditions and restrictions affecting the Property; drainage or soils conditions at the site; utility services; zoning, environmental and/or building laws or regulations affecting the Property; or compliance of the Property with any applicable codes, laws, ordinances and regulations, including without limitation the Americans With Disabilities Act. Purchaser agrees and acknowledges that, prior to executing this Agreement and as of Closing, Purchaser shall have made such feasibility studies, investigations, title searches, environmental studies, engineering studies, inquires of governmental officials, and all other inquiries and investigations as Purchaser shall deem necessary to satisfy itself as to the condition and quality of the Property and, except as otherwise set forth in Subsection 6.1 of this Agreement, Purchaser has solely relied upon such studies, investigations, searches and inquiries and not on any representations or warranties of Seller. Furthermore, Purchaser acknowledges and agrees that, except as otherwise set forth in Subsection 6.1 of this Agreement, no patent or latent condition affecting the Property in any way, whether known or unknown, discoverable or hereafter discovered shall affect any of Purchaser's obligations contained in this Agreement or give rise to any right of damages, liability, claim, rescission or otherwise against Seller. By proceeding with Closing, Purchaser acknowledges that it has been given ample opportunity to inspect the Property and has not relied on any representations or warranties of Seller,

except as expressly stated herein. To the extent that Seller has provided to Purchaser any information, prepared by any third party or parties that is untrue or which otherwise results in any damage(s) to Purchaser, Seller agrees to assign to Purchaser all rights and causes of action against such third party or parties, therefor, shall cooperate with Purchaser in enforcement of such rights and causes of action and nothing herein shall be deemed or construed to limit Purchaser's recourse or to release or waive any claim(s) against such persons. Notwithstanding the foregoing, such assignment shall not limit Seller's right to bring a cause of action against such third party or third parties and Seller expressly reserves all rights respecting matters involving the Housing Unit.

3.4 Release and Waiver.

Purchaser, for itself and its successors and assigns, unconditionally releases and forever discharges Seller and its partners, members, officers, directors, employees, and attorneys ("Seller Personnel") from and against any and all claims, causes of action, judgments, damages, losses, penalties, fines, liabilities (including strict liability), costs and expenses of any kind or nature, both known or unknown, present and future, for any matter relating directly or indirectly to the condition of the Property or Unit 5 as of Closing, including without limitation the physical or environmental condition of or any damage to the Property or Unit 5, and regardless of fault or negligence of Seller, except for a breach of Seller's representations and warranties set forth in Subsection 6.1, below. In this connection and to the extent permitted by law, Purchaser hereby agrees, represents and warrants that Purchaser realizes and acknowledges that factual matters now unknown to it may have given or may hereafter give rise to causes of action, claims, demands, debts, controversies, damages, costs, losses, and expenses which are presently unknown, unanticipated and unsuspected, and Purchaser further agrees, represents and warrants that the waivers and releases herein have been negotiated and agreed upon light of that realization. The provisions of this paragraph shall be deemed remade at the Closing and shall survive thereafter. Furthermore, and without limiting the foregoing, except for a breach of Seller's representations and warranties set forth in Subsection 6.1, Purchaser hereby expressly waives and relinquishes any and all rights and remedies Purchaser may now or hereafter have against Seller and the Seller's Personnel under any statute or the common law, whether known or unknown, with respect to any presence or existence of hazardous materials on, under or about the Property prior to or as of the Closing or with respect to any violations, prior to or as of the Closing of any rules, regulations or laws regulating or governing the use, handling, storage or disposal of hazardous materials, including, without limitation, (i) any and all rights Purchaser may now or hereafter have to seek contribution from Seller or Seller Personnel under Section 113(f)(i) of the Comprehensive Environmental Response Compensation and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C.A. 9613), as the same may be further amended or replaced by any similar law, rule or regulation, (ii) any and all rights Purchaser may now or hereafter have against Seller or Seller Personnel under the Washington Model Toxics Control Act or other Washington rules, regulations or laws relating to hazardous materials, as the same may be further amended or replaced by any similar law, rule or regulation, and (iii) any and all claims, whether know or unknown, now or hereafter existing, with respect to the Property or Unit 5 under Section 107 of CERCLA (42 U.S.C.A. 9607). The waivers and releases by Purchaser herein contained shall survive Closing and shall not be deemed merged into the deed from Seller to Purchaser.

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4. SELLER'S OBLIGATIONS

At all times from the date of this Agreement to the Closing, Seller shall:

1. Make all principal and interest payments due under, and comply with each and every covenant and obligation imposed upon the owner of the Project by promissory notes, mortgages, deeds of trust, regulatory agreement, ground or other leases and any other agreements affecting the Property or secured by an interest in the Property or any part thereof, and will take any and all action as may be necessary to avoid any default under such agreements;

2. Not negotiate, enter into or cause to be entered into any written or oral option, sale agreement or lease of Unit 5 or any portion thereof;

3. Maintain, use and operate the Project in compliance with applicable laws, regulations and ordinances with respect to the ownership, use and occupancy of the Project;

4. Diligently proceed with the construction of the Improvements in substantial conformance with the Plans and Specifications, as the same may be amended with the written approval of Purchaser, and comply with all land use approvals and construction permits for the Project; and

5. Pay for any materials, supplies or work provided or ordered for the Project prior to the Closing and for which a labor, materialman's or mechanic's lien may be claimed under applicable law.

5. PURCHASER CONTINGENCIES

In addition to other terms and conditions in the Agreement, Purchaser's obligations hereunder are further conditioned upon the following:

1. Completion of Unit 5 by Seller in substantial conformance with the Plans and Specifications, as the same may be amended with the written approval of Purchaser and in conformance with the Shell Condition, as the same may be amended with the written approval of Purchaser to the extent such approval is required pursuant to this Agreement;

2. Seller's and its general contractor's compliance with all requirements of land use and construction permits issued for the Improvements; and

3. Seller's recording of the Declaration and Map.

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6. REPRESENTATIONS AND WARRANTIES

6.1 Seller's Representations and Warranties.

For the purposes of inducing Purchaser to consummate the transactions contemplated hereby, Seller represents and warrants to Purchaser, as of the date hereof and, except as otherwise set forth herein, as of the Closing Date, in addition to the warranties in the deed delivered to Purchaser, as follows:

6.1.1 Seller has full power, authority and legal right to execute, deliver and perform this Agreement, and all other documents and certificates contemplated hereby; the Seller has duly authorized the execution, delivery and performance thereof; and has authorized the person executing this Agreement to do so;

6.1.2 The execution of this Agreement and the Closing will not violate any other agreement of Seller. Seller has not entered into any other contracts for the sale of the Property or Unit 5 to any other parties, nor do there exist any prior rights of first refusal or options to purchase Unit 5. Seller has not sold, transferred, conveyed or restricted any development rights relating to the Property except as set forth in the Unit Permitted Exceptions;

6.1.3 This Agreement constitutes the legal, valid and binding obligation of Seller, enforceable against Seller in accordance with its terms;

6.1.4 Seller has performed each of its obligations set forth in Sections 4.1 through 4.5 of this Agreement; and

6.1.5 There are no actions, suits, proceedings, orders or investigations pending or, to the best of Seller's knowledge, threatened against or affecting Seller which might adversely affect Seller's performance under this Agreement or the consummation of the transactions contemplated hereby.

For the purposes of inducing Purchaser to consummate the transactions contemplated hereby, Seller represents and warrants to Purchaser, as of the Closing Date, in addition to the warranties in the deed delivered to Purchaser, as follows:

6.1.6 Seller has created the Condominium in conformance with all applicable laws.

6.2 Purchaser's Representations and Warranties

For the purposes of inducing Seller to consummate the transactions contemplated hereby Purchaser represents and warrants to Seller, as of the date hereof and, except as otherwise set forth herein, as of the Closing Date, as follows:

6.2.1 Purchaser has full power, authority and legal right to execute, deliver and perform this Agreement, and all other documents and certificates contemplated hereby; the Purchaser has duly authorized the execution, delivery and performance thereof; and has authorized the person executing this Agreement to do so;

6.2.2 This Agreement constitutes the legal, valid and binding obligation of Purchaser, enforceable against Purchaser in accordance with its terms; and

6.2.3 There are no actions, suits, proceedings, orders or investigations pending or, to the best of Purchaser's knowledge, threatened against or affecting Purchaser which might adversely affect Purchaser's performance under this Agreement or the consummation of the transactions contemplated hereby.

6.3 Survival of Warranties.

The representations and warranties in this Agreement shall survive the Closing and shall be fully effective for a period of one year thereafter. If Seller breaches any warranty, Purchaser shall have the rights and may exercise, at its option, any of the remedies, provided under Section 8.1 of this Agreement. If Purchaser breaches any representation, warranty, or covenant, Seller shall have the rights and may exercise, at its option, any of the remedies, provided under Section 8.2 of this Agreement.

6.4 Limitation on Warranties.

Seller makes no warranties, express or implied, as to the real property underlying the Condominium, the Property or the construction of the Improvements, except as set forth in this Agreement. Except as set forth in this Agreement, Seller makes no express warranties of quality, suitability, fitness or merchantability relating to the Property, the Improvements, the construction of the Condominium or Unit 5. Seller excludes and disclaims any warranty of fitness or merchantability, and any warranty which might otherwise be implied by RCW 64.90.665 and 64.90.670 of the Washington Uniform Common Interest Ownership Act or other law.

7. CLOSING

7.1 Closing Date.

"Closing" means the delivery and recording of the Deed (as that term is defined below) from Seller to Purchaser. The Closing shall take place within 60 days of the completion of Unit 5 in Shell Condition or at such later date as may be agreed to by the parties (the "Closing Date"). Each party hereto agrees to execute and deliver to the Title Company such closing escrow instructions as may be necessary to implement and coordinate the Closing as set forth in this Agreement.

7.2 Seller's Closing Obligations.

At the Closing, Seller shall deliver to the Escrow Holder:

7.2.1 An executed bargain and sale deed to Unit 5 subject only to the Unit Permitted Exceptions (the "Deed"), real estate excise tax affidavit and such other agreements, documents and instruments as may be necessary to transfer, convey and assign Unit 5 to Purchaser; and

7.2.2 Such other instruments as may be required to fully consummate the transaction contemplated hereby.

7.3 Purchaser's Closing Obligations.

At the Closing, Purchaser shall deliver to the Escrow Holder the Purchase Price in cash or other immediately available funds, minus the credits for the Earnest Money, and execute and deliver to the Escrow Holder all instruments or documents as may be required to fully consummate the transaction contemplated hereby.

7.4 Allocation of Closing Expenses.

7.4.1 The Purchaser shall pay the following costs of Closing: one-half (1/2) of the escrow fees of the Escrow Holder, the cost of recording any documents that Purchaser may choose to record and the premium for an extended owner's policy of title insurance or any endorsements to such title policy desired by Purchaser.

7.4.2 The Seller shall pay the following costs of Closing: the cost of recording the Deed, the cost of removing liens and encumbrances from Unit 5 that are not Unit Permitted Exceptions, one-half (1/2) of the escrow fees of the Title Company, the real estate excise tax and the premium for a standard policy of owner's title insurance insuring Unit 5 in the amount of the Purchase Price.

7.5 Prorations.

7.5.1 The following items shall be prorated between Seller and Purchaser at the Closing, as of the Closing Date: property taxes and assessments for the then-current tax year relating to Unit 5 and all utilities and other operating expenses, if any.

7.5.2 With respect to the proration of operating expenses, utilities and similar expenses, if any such sums are not ascertainable as of the Closing, the parties shall estimate the amounts for purposes of proration at the Closing. On or before sixty (60) days after the Closing, the parties shall reconcile actual expenses, and at that time if it is determined that any amount of money is owed to a party from the other, said payment shall be made within fifteen (15) days.

7.6 Right to Possession.

At the Closing and as a condition thereto, Purchaser shall have full and unrestricted right to possession of Unit 5 subject to the Unit Permitted Exceptions and the requirements of this Agreement, including, but not limited to, Section 2.4 this Agreement.

7.7 Risk of Loss.

Risk of loss or damage to Unit 5 by condemnation, eminent domain, or similar proceedings (or deed in lieu thereof), or by fire or any other casualty, from the date hereof through the time of the recording of the Deed will be on Seller and thereafter will be on Purchaser. In the event of loss or damage to the Property by condemnation, eminent domain, or similar proceedings, or by fire or any other casualty from the date of this Agreement but prior to closing, Seller shall immediately notify Purchaser in writing of such loss and within fourteen (14) days shall notify Purchaser in writing of (1) Seller's intention to proceed with construction of the Improvements and of adjustments to schedule and budget, if any; or (2) notify Purchaser that Seller will not complete the Improvements. Within twenty (20) days of receiving such notices from Seller, Purchaser shall

provide written notice to Seller of Purchaser's decision in its sole discretion, to proceed with purchase of the Property, or to terminate this Agreement. Subject to the rights of Seller's lenders and equity investor in any proceeds of condemnation or insurance proceeds, in the event the Agreement is terminated, Purchaser shall be entitled to the share of the proceeds attributable to Unit 5 and the Earnest Money paid by Purchaser. In the event Purchaser fails to provide such notice to Seller, this Unit Agreement shall be deemed null and void, and all further rights and obligation of the parties hereunder shall terminate.

8. TERMINATION AND REMEDIES

8.1 Seller's Defaults.

8.1.1 Seller's Defaults. Seller shall be deemed to be in default hereunder in the event Seller fails, for a reason other than Purchaser's default hereunder, to meet, comply with, or perform any covenant, agreement or obligation on its part required within the time limits and in the manner required in this Agreement, or there shall have occurred a breach of any representation or warranty made by Seller.

8.1.2 Purchaser's Remedies. In the event of a default by Seller under any of the terms and provisions of this Agreement and after thirty (30) days written notice by Purchaser to Seller of such default and Seller's opportunity to cure, Purchaser's sole and exclusive remedy shall be to terminate this Agreement and the escrow created hereby and recover actual (but not consequential) damages resulting from Seller's default in an amount not to exceed $25,000, including the return of the Earnest Money.

8.2 Purchaser's Defaults.

8.2.1 Purchaser's Defaults. Purchaser shall be in default hereunder in the event Purchaser fails, for a reason other than Seller's default hereunder, to meet, comply with, or perform any covenant, agreement or obligation on its part required within the time limits and in the manner required in this Agreement, or there shall have occurred a breach of any representation or warranty made by Purchaser.

8.2.2 Seller's Remedies. In the event of Purchaser fails without legal excuse to complete the purchase of Unit 5 under the terms and provisions of this Agreement, including but not limited to a failure to timely perform Purchaser's closing obligations or failure to pay any sums when due, Seller may elect to pursue any remedy available at law or in equity, including but not limited to one or more of the following remedies: (a) terminate this Agreement and retain the Earnest Money and recover all reasonable attorney fees and costs expended in connection with this Agreement; or (b) sue to specifically enforce this Agreement and recover any incidental damages, including reasonable attorney fees and expenses.

8.3 Attorneys' Fees.

Should either party bring an action to enforce or interpret any of the provisions of this Agreement, or to recover damages for the breach hereof, the prevailing party will be entitled to receive, in addition to any other relief granted, all reasonable attorneys' fees and costs expended in connection therewith.

9. MISCELLANEOUS

9.1 Entire Agreement; Modification; Counterparts.

This Agreement sets forth the entire understanding between the parties with respect to the transactions contemplated herein and supersedes all prior or contemporaneous agreements, oral or written. Neither this Agreement nor any provision hereof may be waived or amended except by an instrument in writing signed by both parties. This Agreement may be executed in any number of counterparts and together, all counterparts shall be deemed to constitute a single agreement. The execution and delivery of one counterpart by any Party shall have the same force and effect as if that Party had signed all other counterparts. The signatures of this Agreement may be executed on separate pages and when attached to this Agreement shall constitute one complete document. Delivery of an executed copy of this Agreement by facsimile, attachment to an email or electronic signature (such as DocuSign) shall be legal and binding on the transmitting party and shall have the same full force and effect as if an executed original Agreement had been delivered.

9.2 Time of Essence.

Time is of the essence of this Agreement.

9.3 Survival of Terms.

The terms and provisions hereof shall survive the Closing and shall remain in full force and effect thereafter.

9.4 Notices.

All notices to either party must be in writing and either (i) delivered in person, (ii) by United States certified mail, postage prepaid, (iii) by courier service, postage prepaid, or (iv) by electronic mail (email) with confirmed receipt or other evidence of transmission and sent to the address of such party as set forth below, or such other address (or facsimile number) as either party may from time to time designate by written notice to the other.

If to Seller:	**If to Purchaser:**
BW Overlake LLLP	City of Redmond
c/o Bellwether Housing	[_____]
433 Minor Ave N	[_____]
Seattle, WA 98109	[_____]
Attention: Chief Executive Officer	Attn: [_____]
Email: sboyd@bellwetherhousing.org	Email: [_____]

All notices shall be deemed given on the date such notice is delivered (or if refused, the date of such refusal) or the date transmitted by email if received on a business date before 5 PM PST (if received on a non-business day or after 5 PM PST, then delivery shall be deemed on the next business day), or on the third business day following the date such notice is mailed in accordance with this paragraph 9.4, whichever is applicable.

9.5 Interpretation.

Words of any gender used in this Agreement shall be held and construed to include any other gender, and words of a singular number shall be held to include the plural, and vice versa, unless the context requires otherwise.

9.6 Captions.

The captions used in this Agreement are for convenience only and shall not be deemed to construe or to limit the meaning of the language of this Agreement.

9.7 Binding Effect; Assignment.

This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns. Notwithstanding the foregoing, Purchaser shall not assign its rights under this Agreement without the prior written consent of Seller. Purchaser shall deliver written notice of such assignment to Seller within five (5) business thereof.

9.8 Severability.

If one or more of the provisions of this Agreement or any application thereof shall be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions or any other application thereof shall in no way be affected or impaired.

9.9 Execution Date.

All references in this Agreement to the "Execution Date," the "date hereof," "the date the Agreement was executed," or other phrases of similar import shall be deemed to refer to the date upon which the last of the parties hereto has executed this Agreement.

9.10 Applicable Law.

This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. Venue of any action hereunder shall be in King County, Washington.

9.11 Commercial Condominium Unit, Purchaser Protections not Applicable.

Purchaser acknowledges that Unit 5 will be restricted to nonresidential use. In light of that restriction, Purchaser and Seller agree that nothing in Article 4 of the RCW 64.90 will apply to this sale or to Unit 5. Therefore, Purchaser will not receive any Public Offering Statement for the Condominium. Purchaser waives any right to receive a Public Offering Statement and will have no rights to cancel this Agreement or receive damages under RCW 64.90.635. Furthermore, in light of that restriction, Purchaser will not be entitled to any implied warranties under RCW 64.90.670 and Purchaser waives the provisions of RCW 64.90.645 requiring escrow of deposits. Purchaser also waives any right to receive any disclosures pursuant to RCW Ch. 64.06.

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9.12 Exhibits.

The following exhibits are incorporated into and made a part of this Agreement as if set forth fully herein:

Exhibit A	Legal Description of Property
Exhibit B	Architect's Schematic of Unit 5
Exhibit C	Condominium Declaration
Exhibit D	Association Documents
Exhibit E	Development Budget for Unit 5
Exhibit F	Preliminary Commitment

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IN WITNESS WHEREOF, this Condominium Unit Purchase and Sale Agreement has been executed by each of the parties as of the date first written above.

SELLER:

BW OVERLAKE LLLP,
a Washington limited liability limited partnership

By: BW Overlake GP LLC,
a Washington limited liability company
Its: General Partner

By: Bellwether Housing,
a Washington nonprofit corporation
Its: Manager

By: _____
Susan Boyd, Chief Executive Officer

PURCHASER:

CITY OF REDMOND

_____
By: Angela Birney
Its: Mayor

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EXHIBIT A – LEGAL DESCRIPTIONS

The Land referred to herein below is situated in the County of King, State of Washington, and is described as follows:

Lot 2, OVERLAKE VILLAGE STATION BINDING SITE PLAN, according to the plat thereof recorded in Volume 303 of Plats, page 32, records of King County, Washington.

"Unit 5" subject to this Agreement will be described substantially as:

UNIT 5 OF "PRISMA, A CONDOMINIUM" RECORDED IN SURVEY MAP AND PLANS RECORDED IN VOLUME _____ OF CONDOMINIUMS ON PAGES _____ THROUGH _____ INCLUSIVE AND ANY AMENDMENTS THERETO, CONDOMINIUM DECLARATION RECORDED UNDER KING COUNTY RECORDING NUMBER _____ AND ANY AMENDMENTS THERETO, IN KING COUNTY, WASHINGTON.

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EXHIBIT B - ARCHITECT'S SCHEMATIC OF UNIT 5

(attached)

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EXHIBIT C – CONDOMINIUM DECLARATION

(attached)

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EXHIBIT D – ASSOCIATION DOCUMENTS

(attached)

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EXHIBIT E – DEVELOPMENT BUDGET FOR UNIT 5

Acquisition Costs	
Land	$1980
Acquisition Closing	$397
Acquisition – Carrying Costs	$317
Construction	
Demolition	
New Building	$356,145
Construction Contingency	$11,502
Site Work/Infrastructure	
Off Site Work	$2,127
Environmental Abatement (Land)	
Sales Tax	$21,481
Equipment and Furnishings (FF&E)	
Commercial Tenant Improvements	
Other	$8,750
Soft Costs	
Architect	$5,159
Engineering	$3,564
Environmental Assessment	$56
Geotech	$150
Boundary & Topographic Survey	$94
Legal Real Estate	$188
Developer Fee	
Other Consultants	$375
Other	$619
Soft Cost Contingency	$3,015
Predev/Bridge Financing	
Bridge Loan Fees	$238
Bridge Loan Interest	$1,992
Construction Financing	
Construction Loan Origination Fees	$1,155
Construction Loan Expenses	$281
Legal – Construction Loan	$413
Construction Period Interest	$15,000
Lease-up Period Interest	
Permanent Financing	
Permanent Loan Origination Fees	
Permanent Loan Expenses	594
Legal Permanent Loan	792
Perm Closing Title & Recording	990
Other Development Costs	
Real Estate Tax	
Insurance – Liability	$1,876

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Permits, Fees & Hookups	$35,704
Accounting/Audit	$396
Total Development Cost	**$475,350**

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EXHIBIT F – PRELIMINARY COMMITMENT

(attached)

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Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-443
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Planning and Community Development	Carol Helland	425-556-2107

DEPARTMENT STAFF:

Planning and Community Development	Seraphie Allen	Deputy Director
Planning and Community Development	Jeff Churchill	Long Range Planning Manager

TITLE:
2025 Annual Code Cleanup

OVERVIEW STATEMENT:
Staff recommends that the Council adopt minor amendments to the Redmond Zoning Code as part of the Annual Code Cleanup. Staff requests that the item be placed on the September 2, 2025, consent agenda. The three items in this package are:

- Clarifying when a change of use triggers compliance with off-street parking requirements.
- Correcting an error in a table concerning public hearing requirements for Type V permit applications.
- Adding a definition for culvert.

The Planning Commission recommended Council approve these amendments on June 11, 2025. The Commission's Report is provided in Attachment A.

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  Comprehensive Plan policy PI-17 calls for clear development regulations.
- **Required:**
  Ordinance adoption requires Council approval.
- **Council Request:**
  N/A

- **Other Key Facts:**
  N/A

OUTCOMES:
The outcome of the annual code cleanup is development regulations that are clear to customers, staff, and the community.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  Q2 2025.
- **Outreach Methods and Results:**
  E-newsletters, public hearing.
- **Feedback Summary:**
  No comment of testimony was received on these code cleanup items.

BUDGET IMPACT:

Total Cost:
$5,350,743 is the total value of the Community and Economic Development offer, which includes the staff time devoted to this work.

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
0000304 - Community and Economic Development

Budget Priority:
Vibrant and Connected

Other budget impacts or additional costs: ☐ **Yes** ☒ **No** ☐ **N/A**
If yes, explain:
N/A.

Funding source(s):
General Fund.

Budget/Funding Constraints:
N/A.

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
	Item has not been presented to Council	

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/2/2025	Business Meeting	Approve

Time Constraints:
None.

ANTICIPATED RESULT IF NOT APPROVED:
Ambiguities and errors in the code will persist if the item is not approved.

ATTACHMENTS:
Attachment A: Planning Commission Report with Appendices
Attachment B: Ordinance Amending the Redmond Zoning Code (draft)

Docusign Envelope ID: 1AA8B1B1-947D-4B98-9ED7-A0069D1EA175

Redmond
WASHINGTON

PLANNING COMMISSION REPORT AND RECOMMENDATION TO CITY COUNCIL

June 25, 2025

Project File Number:	**LAND-2025-00121 | SEPA-2025-00122**
Proposal Name:	**2025 Annual Code Cleanup**
Applicant:	**City of Redmond**
Staff Contacts:	Jeff Churchill, Long Range Planning Manager 425-556-2492

FINDINGS OF FACT

Public Hearing and Notice

a. Planning Commission Study Sessions and Public Hearing Dates
   i. The City of Redmond Planning Commission held a study session on May 28 and June 11, 2025.
   ii. The City of Redmond Planning Commission held a public hearing on the proposed amendments on June 11, 2025. No comments were received.

b. Notice and Public Involvement
   The public hearing notice was published in the Seattle Times on May 21, 2025in accordance with RZC 21.76.080 Review Procedures. Notice was also provided by including the hearing schedule in Planning Commission agendas and extended agendas, distributed by email to various members of the public and various agencies.

Redmond Zoning Code Amendment Summary and Criteria Evaluation

The City of Redmond is proposing amendments to the Redmond Zoning Code (RZC) to clarify various requirements to improve usability of the RZC for staff, customers, and community members. The amendments are summarized in the table below.

Chapter	Amendment Summary	Rationale
RZC 21.40 Parking Standards	Clarifies that change of use is not a trigger for requiring additional parking.	Removes barrier to re-tenanting existing space.
RZC 21.76 Review Procedures	Correct error concerning public hearings for Type V permits.	Corrects error.
RZC 21.78 Definitions	Add definition for "culvert" where none exists.	Ensures all code users have common understanding of the term.

The full amendments are provided as Attachment A: Recommended Amendments to the Redmond Zoning Code.

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Staff Analysis

The staff analysis for this proposal can be found in Attachment A to the Technical Committee Report.

Recommended Conclusions of the Technical Committee

On May 21, 2025, the Technical Committee reviewed amendments to the Redmond Zoning Code, as documented in Appendix D, and found the amendments to be consistent with applicable review criteria and therefore recommended approval.

RECOMMENDED CONCLUSIONS

The Planning Commission has reviewed:

A. *Applicable criteria for approval: RZC 21.76.070 Criteria for Evaluation and Action, and*
B. *The Technical Committee Report* ***(Appendix D).***

Summary of Planning Commission Discussion Issues

The Commission asked for clarification on the use of the terms "FEMA," "floodplain," and "floodway" in the revisions to RZC Appendix approved by the Technical Committee.

Recommendation

The Planning Commission finds the amendments to the Redmond Zoning Code, to be consistent with applicable review criteria and therefore recommended approval as shown in Attachment A.

Seraphie Allen, Deputy Director
Planning and Community Development

Signed by:
Susan Weston
2E66B184628E4A6...
Susan Weston
Planning Commission Chair

Attachments

A. Recommended Amendments to the Redmond Zoning Code

Appendices

A. Planning Commission Issues Matrix
B. Public Hearing Notice
C. Planning Commission Meeting Minutes
D. Technical Committee Report with Exhibits

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REDMOND ZONING CODE

Code Amendment Summary

Non-Conforming Parking

Subject Matter Expert	*Jeff Churchill*
Author	*Jeff Churchill*
Policy Basis for Amendment	*TR-35*
Relevant Code Portions	RZC 21.40.010.C.1

Proposed Amendment Overview

The amendment clarifies that on sites with non-conforming parking quantities, a change of use is not a trigger for requiring additional parking if there is no increase in size of the structure and no increase in the degree of non-conformity.

Rationale

- Removes barrier to re-tenanting existing space.
- Consistent with Comprehensive Plan policy TR-35 concerning prioritizing space for people, housing, jobs, services, recreation, amenities, and environmental sustainability.

Key Decision Points (as applicable)

- N/A

Stakeholder Feedback to Date

- None

EXISTING CODE:

C.1. Nonconforming Parking.

a. A development that met the parking requirements in effect at the time it was approved but that does not have sufficient parking spaces to meet the current requirements of this chapter, may continue to operate with the parking deficiency as long as no enlargement is made that would require additional parking spaces;

b. When a development with nonconforming parking is enlarged so as to require additional parking spaces, the requirements of this chapter shall apply only to the enlargement;

c. When a preexisting building with nonconforming parking is remodeled or rehabilitated but not enlarged, the existing use of the building may continue without providing additional parking. In the event that the land use is increased by an addition of building square footage, the minimum level of parking required, including bicycle parking required by this chapter, consistent with the increased land use affected by the change must be

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provided, or an approved Mobility Management Program, as provided in RZC 21.52.020, Mobility Management Program, must be implemented for the site that effectively reduces parking demand;

d. When additional uses are placed on the same lot with the nonconforming parking or an enlarged lot of which the lot with nonconforming parking is a part, the requirements of this chapter shall apply only to the additional use; and

e. *Repealed.*

f. *Parking in Downtown, Overlake, and Marymoor Design Districts.*

i. Developments with nonconforming parking shall not be required to provide additional parking spaces when a change of use occurs or minor improvements are performed; provided, that the change of use or minor improvement does not enlarge the structure or increase the amount of nonconformity.

ii. Developments, sites, and structures where a portion of the sites and/or structures have been obtained under threat of condemnation shall not be required to provide additional parking spaces than that which was sufficient to meet the requirements in place during the most recent development or construction of the site.

WORKING AMENDMENT:

C.1. Nonconforming Parking.

a. A development that met the parking requirements in effect at the time it was approved but that does not have sufficient parking spaces to meet the current requirements of this chapter, may continue to operate with the parking deficiency as long as no enlargement is made that would require additional parking spaces;

b. When a development with nonconforming parking is enlarged so as to require additional parking spaces, the requirements of this chapter shall apply only to the enlargement;

c. When a preexisting building with nonconforming parking is remodeled or rehabilitated but not enlarged, the existing use of the building may continue without providing additional parking. In the event that the land use is increased by an addition of building square footage, the minimum level of parking required, including bicycle parking required by this chapter, consistent with the increased land use affected by the change must be provided, or an approved Mobility Management Program, as provided in RZC 21.52.020, Mobility Management Program, must be implemented for the site that effectively reduces parking demand;

d. When additional uses are placed on the same lot with the nonconforming parking or an enlarged lot of which the lot with nonconforming parking is a part, the requirements of this chapter shall apply only to the additional use; and

~~e. Repealed.~~

~~f. Parking in Downtown, Overlake, and Marymoor Design Districts.~~

e. ~~i.~~ Developments with nonconforming parking shall not be required to provide additional parking spaces when a change of use occurs or minor improvements are performed; provided, that the change of use or minor improvement does not enlarge the structure or increase the amount of nonconformity.

f. ~~ii.~~ Developments, sites, and structures **in Downtown, Overlake, and Marymoor Village** where a portion of the sites and/or structures have been obtained under threat of condemnation shall not be required to provide additional parking spaces than that which was sufficient to meet the requirements in place during the most recent development or construction of the site.

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REDMOND ZONING CODE

Code Amendment Summary

Public Hearings for Type V Permits

Subject Matter Expert	*Carol Helland*
Author	*Jeff Churchill*
Policy Basis for Amendment	*PI-17 concerning clear development regulations.*
Relevant Code Portions	Table 21.76.050A

Proposed Amendment Overview

The amendment corrects an error concerning when public hearings are required.

Rationale

- Table 21.76.050A incorrectly states that no public hearing is held for Type V permit applications.
- This contradicts the language in RZC 21.76.050.J.

Key Decision Points (as applicable)

- N/A

Stakeholder Feedback to Date

- None

EXISTING CODE:

Table 21.76.050A
Permit Types

	Permit Type					
	Type I Administrative	**Type II Administrative**	**Type III Quasi-Judicial**	**Type IV Quasi-Judicial**	**Type V Quasi-Judicial**	**Type VI Legislative**
Level of Impact and Level of Discretion Exercised by Decision Maker	Least level of impact or change to policy/regulation. Least level of discretion.					Potential for greatest level of impact due to changes in regulation or policy. Greatest level of discretion.
Input Sought	Minimal-generally no public notice required. No public hearing.	Notice of Application provided. No public hearing. Neighborhood meeting only required for short plats meeting certain criteria.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	No	Notice of Public Hearing provided.

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Public Hearing Prior to Decision?	No	No	Yes, Hearing Examiner (or Landmark Commission)[2]	Yes, Hearing Examiner	No	Yes, Planning Commission
Decision Maker	Appropriate Department	Technical Committee	Hearing Examiner (or Landmark Commission)[2]	City Council	City Council	City Council
Administrative Appeal Body	Hearing Examiner (Hearing Examiner decision on appeal may be appealed to Superior Court.)	Hearing Examiner[1](Hearing Examiner decision on appeal may be appealed to Superior Court.)	None (decision appealable to Superior Court)[1] Hearing Examiner[3] (Hearing Examiner decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)

TABLE NOTES:

1. Shoreline Substantial Development Permits, Shoreline Variances, and Shoreline Conditional Use Permits are appealable directly to the State Shorelines Hearings Board. Use Permits are appealable directly to the State Shorelines Hearings Board.

2. Landmark Commission makes decisions for Certificate of Appropriateness Level III permits.

3. Only for decision by Landmark Commission

WORKING AMENDMENT:

Table 21.76.050A
Permit Types

	Permit Type					
	Type I Administrative	**Type II Administrative**	**Type III Quasi-Judicial**	**Type IV Quasi-Judicial**	**Type V Quasi-Judicial**	**Type VI Legislative**
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Input Sought	Minimal-generally no public notice required. No public hearing.	Notice of Application provided. No public hearing. Neighborhood meeting only required for short plats meeting certain criteria.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	No	Notice of Public Hearing provided.
Public Hearing Prior to Decision?	No	No	Yes, Hearing Examiner (or Landmark Commission)[2]	Yes, Hearing Examiner	Yes	Yes, Planning Commission
Decision Maker	Appropriate Department	Technical Committee	Hearing Examiner (or Landmark Commission)[2]	City Council	City Council	City Council
Administrative Appeal Body	Hearing Examiner (Hearing Examiner decision on appeal may be appealed to Superior Court.)	Hearing Examiner[1](Hearing Examiner decision on appeal may be appealed to Superior Court.)	None (decision appealable to Superior Court)[1] Hearing Examiner[3] (Hearing Examiner decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)

TABLE NOTES:

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REDMOND ZONING CODE

Code Amendment Summary

Definition of Culvert

Subject Matter Expert	*Doug De Vries, Cindy Wellburn*
Author	*Lauren Alpert*
Other Key Staff	*N/A*
Policy Basis for Amendment	*Provide clarity to stakeholders including applicants, city leaders, hearing examiner, and staff. The definition also in compliance with the Washington State regulations.*
Relevant Code Portions	*Article VIII Definitions (21.78) C definitions* *21.08.147, 21.64.020, 21.14.070, 21.64.020.D.3,21.14.070* *Definition for In-Water Structure*

Proposed Amendment Overview

- Adds definition to 21.78 for culverts

Rationale

- Adding clarity for users of the code

Research Methods and Findings (as applicable)

- It complies with WA and Federal regulations

Key Decision Points (as applicable)

- Use bulleted list to highlight the Team's most significant decision points; sub bullets are ok

Stakeholder Feedback to Date

- Include no more than 3 items; sub bullets are ok

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EXISTING CODE:

No definition currently exists

WORKING AMENDMENT:

Culvert. A structure, typically under a roadway, rail line, trail or embankment, that is used to convey flow from a natural channel or drainage ditch.

PROPOSED AMENDMENT:

Culvert. A structure or pipe which is designed to convey stormwater through an obstacle such as beneath a road, railway, trail or embankment. Culverts can be classified as either fish passage or standard.

Last edited: <date>
Previous revisions: <list of dates>

2025 Annual Code Cleanup

Issue		Discussion Notes	Issue Status
1	Use of FEMA, floodplain, and floodway in RZC Appendix 1 (Weston)	**Commission Discussion** Commissioner asked for explanation of use of the terms "FEMA," "floodplain," and "floodway" in RZC Appendix 1.D.1.b. **Staff Comments** The FEMA 100-year floodplain is the physical area that is inundated during a 100-year storm event. Another way of saying it is, "an area with a 1% chance of flooding to a certain depth in any given year." The floodway is a planning tool. It is a designation created to determine how far into the 100-floodplain building can be allowed without raising floodwaters to a designated height. Running model simulations repeatedly identifies a corridor in the floodplain that becomes the floodway. There is both a FEMA floodway and a zero-rise floodway. The purpose of the requirements in RZC Appendix 1 is to have applicants summarize flood hazards for development sites, including descriptions and calculations for both the floodplain and the floodway.	Opened 5/28/25 Closed 6/11

Redmond
WASHINGTON

NOTICE OF PUBLIC HEARING
CITY OF REDMOND

Redmond Zoning Code Amendment:
Proposal Name (LAND-2025-00121)

The City of Redmond Planning Commission will hold a Public Hearing at Redmond City Hall Council Chambers, 15670 NE 85th Street, Redmond, Washington on **June 11, 2025 at 7 p.m.** or as soon thereafter, on:

SUBJECT: Zoning Code Amendment for **2025 Annual Code Cleanup**. Project number LAND-2025-00121. The proposal includes minor amendments to RZC 21.40, Parking Standards, RZC 21.76, Review Procedures, and RZC 21.78, Definitions.

REQUESTED ACTION: Planning Commission recommendation on the proposed amendment to the Redmond Zoning Code.

PUBLIC PARTICIPATION: Join in-person at City Hall, watch live at redmond.gov/RCTV, Comcast channel 21, Ziply channel 34, on facebook.com/CityofRedmond, or listen live by phone by calling 510-335-7371.

Public comment can be provided in-person or by phone during the meeting by providing a name and phone number to PlanningCommission@redmond.gov no later than 5 p.m. on the day of the hearing.

Written public comments should be submitted prior to the hearing by email to PlanningCommission@redmond.gov no later than 5 p.m. on the hearing date. Comments may also be sent by mail to: Planning Commission, MS: 4SPL, P.O. Box 97010, Redmond, Washington, 98073-9710.

A copy of the proposal is available at redmond.gov/671/Proposed-Minor-Code-Changes. If you have any comments, questions, or would like to be a Party-of-Record on this proposal, **please contact Jeff Churchill, Planning Manager, 425-556-2492, jchurchill@redmond.gov.**

If you are hearing or visually impaired, please notify Planning Department staff at 425-556-2441 one week in advance of the hearing to arrange for assistance.

LEGAL NOTICE: May 21, 2025

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MEETING MINUTES

REDMOND PLANNING COMMISSION MEETING

Wednesday, June 11, 2025 – 7:00 p.m.

1. Call to Order & Roll Call – 7:00 p.m.

Commissioners Present:	Chair Susan Weston, Commissioners Adam Coleman, Bryan Copley, Denice Gagner, Tara Van Niman, and Aparna Varadharajan
Commissioners Excused:	Vice-Chair Jeannine Woodyear
Staff Present:	Lauren Alpert, Jeff Churchill, Glenn Coil, Michael Hintze, Francesca Liburdy, Nick Roach, and Chris Wyatt
Recording Secretary:	Carolyn Garza, LLC

2. Approval of the Agenda

   - *Motion to approve the Agenda by Commissioner Copley, seconded by Commissioner Coleman. The Motion passed.*

3. Approval of Meeting Minutes

   - *Motion by Commissioner Copley to approve the May 28, 2025 Meeting Minutes. Motion seconded by Commissioner Coleman. The Motion passed unanimously.*

4. Items from the Audience (General)

   - Rachel Mazur, Hillis Clark Martin & Peterson P.S., 999 - 3rd Avenue, Suite 4600, Seattle, WA, Land Use Council for Columbia Pacific Advisors, stated that written comments had been submitted last Friday and stated being available for questions in the audience during the meeting.

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- David Morton, Redmond 98053, began speaking regarding the Redmond Flex Urban Development Project. Chair Weston stated that the verbal Public Hearing in question had been closed, but that written comment remains open, and the written comment of David Morton had been received earlier today.
- Ben Varin also wished to comment to the Public Hearing which had been closed to verbal comments at the last meeting and did not have other General Comment.

5. Annual Redmond Zoning Code Amendments (Public Hearing and Study Session)

Planning Manager Churchill gave the presentation.

Public Hearing

There were no requests to speak.

Chair Weston closed both written and verbal portions of the Public Hearing.

Study Session

Planning Manager Churchill stated that regarding the remaining issue on the Matrix, staff had provided an explanation regarding Flood Plains and Floodways. Chair Weston closed the Issue and clarified that there was no further review needed.

Motion by Commissioner Copley to recommend approval to City Council of the 2025 Annual Cleanup Package for the Redmond Zoning Code. Motion seconded by Commissioner Van Niman. The Motion passed unanimously.

6. Transportation Master Plan (TMP) (Status Update)

Planning Manager Hintze began the presentation with street plan goals.

Commissioner Aparna asked if bike lanes can cosmetically be different than the road for vehicles to indicate speeds visually and for safety around various motorized equipment, and more safety clarity at intersections. Planning Manager Hintze replied that design refinements are needed, and that the TMP will look at signal timing in the Bike chapter.

Chair Weston asked that when an Issue Matrix is created, questions be captured with the name of the asking Commissioner so that comments can eventually be closed, and that one topic at a time be raised.

Senior Planner Liburdy continued with the transit presentation.

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Chair Weston asked that Lake Washington School District statistic information be brought back for a discussion regarding school buses and the amount of traffic involved getting children to and from school, similar to how Sound Transit is quantified, and information regarding transit options for major employers.

Commissioner Van Niman asked for more information regarding bus options and school partnerships in the Plan.

Commissioner Gagner asked how transit hubs will improve mobility for underserved communities.

Commissioner Coleman stated that there is an opportunity to create a mix of usage through an agreement between schools and Metro to reduce traffic.

Commissioner Aparna asked if central parcels within neighborhoods could become transit stops.

Planning Manager Hintze continued with the bicycle presentation.

Commissioner Van Niman stated that an important component is a marketing strategy or outreach to schools, large employers, and the community regarding biking. Chair Weston stated that safe places for bike lock ups should be included.

Commissioner Aparna stated that large employers offer showers and secure bicycle storage.

Chair Weston stated that the micro-mobility bucket is overly broad, that speeds of various motorized equipment are a hazard on a non-motorized bike or pedestrian path, and that licenses and training are not required for many.

Commissioner Gagner asked if e-scooter goals have been met and how metrics have been measured and communicated to the public.

Commissioner Coleman stated that clarity in labeling the types of motorized equipment is needed as well as difference in performance, in example, the time to accelerate to a speed is needed before mixing types within lanes.

Commissioner Aparna asked if zones are being considered to be completely pedestrian or for micro-mobility exclusively in centers during festivals.

Chair Weston asked for the current definition of separated bike lanes, and that the network map should be reviewed to ensure improvements are prioritized to extend trail segments to destinations.

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Senior Planner Liburdy continued the presentation with the pedestrian plan.

Commissioner Aparna stated that the wayfinding piece is key and a high-level of navigation capability is missing, such as where walking becomes interrupted or unsafe, and where connectivity becomes utilitarian more than recreational.

Commissioner Coleman asked for more assistance for the visually impaired. Planning Manager Hintze replied that there is an Americans with Disabilities Act (ADA) transition plan being developed.

Commissioner Van Niman stated that there is a Sea-Tac Airport employee with the sole job of wayfinding, asked if redevelopment would require a cut-through on private property, and if there is a way to ensure the pedestrian paths are kept free of public micro-mobility devices.

Chair Weston asked for clarification regarding acceptable jaywalking at low stress pedestrian crossings. Planning Manager Hintze replied that the intention of providing new mid-block crossings is to create safe, comfortable places for people to cross the street. Chair Weston asked that language be tightened for clarity.

Chair Weston stated that as the Issues Matrix does not include Commissioner names the issues will be reviewed to close in September.

Senior Planner Liburdy concluded the presentation with community engagement.

Commissioner Coleman stated waiting for an email reply regarding mitigating safety around Electric Vehicles (EV) in pedestrian areas.

Commissioner Aparna asked about the resilience of pavement and road materials from a safety perspective, such as an asphalt mix with potholes. Senior Planner Liburdy replied that there will be a maintenance tractor that will address maintenance of the transportation network, but not being within the Growth Management Act (GMA) requirements within Planning Commission purview. Commissioner Aparna stated that resilience should be addressed in all chapters, part of the 2050 charter.

Commissioner Coleman asked if a goal of 50% able to access a mass transit point within 10-minutes of walking is being considered.

7. *10-minute Break*

8. 2025-26 Annual Docket (Public Hearing and Study Session)

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Senior Planner Coil stated that three written comments had been received since the last meeting. Verbal comments are closed.

Chair Weston stated for transparency that although code allows an option for the Planning Commission to add items to the docket that have not been through the formal docket process, the option is non-standard and that the Commission will need to decide if setting a precedent is wise; the application process was decided by Council, published, and Commissioners as representatives of the community received training in February, 2025. Deadlines, fees, and a two-step process for docket additions are for fairness and transparency. The docket item request in question has been communicated through emails, not published in a packet or with an opportunity for feedback from the public. The property owner has not applied although there has been steady contact with the city with opportunities to ask about the normal process. Re-opening verbal comments will be considered if the Planning Commission decides to move forward outside of the normal docket process.

Commissioner Van Niman stated that the property owner has operated in good faith, that Mayor Birney and Director Helland had directed the property owner to contact the Planning Commission, and that rather than working outside of the process, the process available is being used. Chair Weston replied that the interaction between the Mayor and Director was not known about by all Commissioners and Commissioner Van Niman described the timeline per a written comment from the property owner received today. Chair Weston stated that the information has not been distributed in the city packet. Senior Planner Coil replied that the written comment in question was forwarded via email to Commissioners. Commissioner Van Niman stated that the city has determined that all criteria have been met. Chair Weston replied that only a letter written by the property owner had been received and that the Planning Commission has not heard directly from the Planning Department Director or the Mayor instructing the Planning Commission to address.

Commissioner Aparna stated that the letter states that the Planning Director and Mayor were met with on May 23, 2025, while the deadline for applications was April 1, 2025. Commissioner VanNiman replied that later in the letter the property owner stated being directed to come to the Planning Commission. Commissioner Aparna replied that the deadline had already been missed, and that if a docket item is allowed to be considered outside of the process while others have respected the process in place, the precedent set by allowing could be detrimental; that the Planning Commission has the authority to add to the docket is for a principle and not to advocate for a particular parcel or project. Commissioner VanNiman stated again that the process states that the Planning Commission has the mechanism and that the Mayor and Planning Department Director have confirmed according to the letter from the property owner. Chair Weston replied that the process set by the City Council does not include the Planning Commission option and that the mechanism is question is in zoning code, separate.

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Commissioner Gagner asked if there was information regarding why the property owner missed the April deadline, approaching the Mayor after the deadline. Chair Weston replied no.

Commissioner Copley stated having read an email from Commissioner Aparna this evening after 5 p.m. opposing the docket addition and stated a concern about precedent. Commissioner Copley stated having called Rebecca Bloom with Columbia Pacific Advisors at 6 p.m. to ask why the deadline was missed. Bloom replied that the property owner was attempting to have code amended until April, and then contacted and was replied to via email by Carol Helland, Planning Director, and Mayor Birney, to go through the process.

Chair Weston stated that the property owner had been spoken with on November 6, 2024 through the code change process, and that they were referred to the docket process on December 4, 2024, the Planning Commission decision. Training on the process was held on February 12, 2025 and the property owner has had numerous contacts with the city. The property owner was aware of pathways to be on the docket and to file on time if interested.

Commissioner Coleman stated not having seen the email or notes from a meeting with the Planning Director and Mayor, and other than the conversation the issue would not be considered. Chair Weston stated not being aware of documentation.

Commissioner Aparna stated that if the Planning Director and Mayor asked the property owner to come to the Planning Commission, the suggestion did not indicate the project would be placed on the docket, not a mandate.

Commissioner Gagner asked for staff opinion. Senior Planner Coil replied that staff does not take a position and referred the Commission to threshold criteria analysis.

Chair Weston stated that there is not disagreement that there is an option in zoning code for the Planning Commission to be able to offer, but the question is if the Planning Commission as a group believes this is a good path forward, to use the statement in zoning code to shepherd certain projects around the stated process.

Commissioner Coleman asked how many times a similar situation has arisen, and Planning Manager Churchill replied that the situation has never happened in memory. Commissioner Coleman asked for clarification that allowing this will open the opportunity to bypass the process and Chair Weston replied yes, that is the implication.

Commissioner Van Niman asked why a property owner would choose to be late and that the property owner operates in good faith. Chair Weston replied that there is a $10,104.70 application fee to change zoning code by City Council to reclaim time and wages of the city, and by not applying the city must cover the fee. The property owner has offered today to cover the fee, but the fee is a standard part of the application process and why there is a process. Chair Weston stated that there is the appearance, but possibly not the intent, of lobbying rather than using proper process channels with Public Comment. Chair Weston stated that whether Commission efforts should be put

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into alternate channels from those already published is in question and not to discuss why the property owner was late.

Commissioner Copley asked why the Planning Commission has the capability in zoning code if it is not going to be used and stated that providing housing is important. Chair Weston replied that the stage of the process is not to argue the merits of a particular project but only whether to put a project on the docket. Commissioner Copley asked if the question was to docket the item or about docketing in general. Chair Weston replied that the process was not being addressed at this time. Commissioner Copley asked for clarification that including the project on the docket would set a precedent and Chair Weston replied that a published procedure could be circumnavigated.

Chair Weston asked if the Issues Matrix could be discussed, with further discussion regarding the project in question following.

Senior Planner Coil stated that the first item was regarding the timing of an application. The second item was related to the threshold criteria analysis. Chair Weston asked to review number four regarding the fee, followed by discussion of the remainder of items as desired by the Commission. Planning Manager Churchill stated that the fee is a combined Comprehensive Plan amendment fee and SEPA fee, that the city Attorney is researching if there is a mechanism for the property owner to pay the fee offered today, and that there must be an answer before City Council can make a decision. Chair Weston stated clarification that the research is because the request is outside of the normal process.

Commissioner Copley stated that the fee must be paid to avoid a precedent of circumnavigating the fee.

Commissioner Aparna stated that the property owner has not made an official application, and while informal application has been made and an email stated the fee will be covered, and staff has been asked to look into the project based on a Public Comment only and that the Planning Commissioners could be approached individually in various ways outside of the Commission. Conversations are being held outside of the process, which builds consensus outside, but basic discussions must be held within the Commission process. Chair Weston stated that discussion regarding the merit of the process is not being discussed and asked for a Motion to pass the docket as is, with a possible amendment after the Motion, and that if the amendment is seconded discussion and a vote can occur or four Commissioners voting in favor.

Commissioner Copley asked if the Commissioners feel they have the information needed to vote. Commissioner Coleman asked for notes from the meeting mentioned in the email from the property owner to understand if the Planning Commission was being instructed to look at the project for the docket. Chair Weston replied that the Commission has not been instructed to do so. Commissioner Coleman asked if the conversation in question should be struck as there is no confirmation. Commissioner Van Niman replied that the property owner wrote that they were given the advice. Commissioner Coleman asked again where the notes are from the conversation, hearsay at this point, and that the principal of the process is at risk by setting a

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precedent. Chair Weston stated that there is not a formal application. Commissioner Van Niman stated trusting that the Planning Director and the Mayor told the property owner to come to the Planning Commission.

Chair Weston stated that there is a difference of opinion that will not be productive to argue further and asked if there are other questions needing to be satisfied to hold a vote. Commissioner Copley stated feeling conflicted, inclined to believe the property owner is operating in good faith, however that allowing the process to be subverted will create problems in the future and that much of the information has only been received by Commissioners after 5 p.m. today, not a part of the public disclosure package, the responsibility of the Commission being to know the full picture prior to voting.

Commissioner Aparna stated having emailed objections to Commissioners the prior weekend. The property owner added comments via email late this afternoon, the timing a matter of concern as the last meeting Minutes were published last week. The first missed deadline was most likely an error, acknowledged, but that the process continues to be subverted; the Public Hearing was published but the information from the property owner was sent two hours prior to the meeting.

Chair Weston asked Commissioner Copley if there was a specific question that could help a decision and Commissioner Copley replied no, originally hoping to better understand not setting a precedent as a new Commissioner but now understanding that the issue has never come up.

Chair Weston asked that unless there are additional questions, an amendment is a valid choice if needed, the facts unchanging, and asked again if there is any information that could change confidence level in the choice. Commissioner Copley replied that lack of an opportunity for Public Comment was the only issue. Chair Weston stated that there is an option to re-open Public Comment in a Motion and vote.

Motion by Commissioner Copley to re-open all Public Comment. Motion seconded by Commissioner Van Niman. The Motion failed 3-3 with no abstentions (Four in favor did not occur).

Chair Weston closed written comment.

Motion by Commissioner Van Niman to add the project to the docket. There was not a second. The Motion failed.

Motion by Commissioner Aparna to recommend approval to the City Council of the 2025-26 Annual Docket as presented in the packet. Motion seconded by Commissioner Van Niman. There was no further discussion. The Motion passed with one abstention.

9. Staff & Commissioner Updates

Senior Planner Alpert stated that a Lunch & Learn was held for staff with Eastside for All, a community-based organization. On Tuesday, June 17, 2025, Principal Planner Frey

Docusign Envelope ID: C3C54070-48A6-4B6C-BF1B-E6AC6D8DC11A

will be on a panel for accessible design cohosted with the Visibility Empowerment Center and Magical Bridge Foundation, a free webinar.

Planning Manager Churchill stated that City Council will address the 2025 Code Package and a resolution authorizing the application for County wide centers for Marymoor Village and the Southeast Redmond Manufacturing Industrial Center on June 17, 2025. Two projects beginning are a Center market study and the Capital Investment Strategy update.

10. Adjourn

- *Motion to adjourn at 9:08 p.m. by Commissioner Copley, seconded by Commissioner Aparna. The Motion passed.*

Minutes approved on:
July 23, 2025

Planning Commission Chair

Signed by:
Susan Weston
2E66B184628E4A6...

Redmond
WASHINGTON

TECHNICAL COMMITTEE REPORT AND RECOMMENDATION TO THE PLANNING COMMISSION

May 21, 2025

Project File Number:	**LAND-2025-00121; SEPA-2025-00122**	
Proposal Name:	**2025 Annual Code Cleanup**	
Applicant:	**City of Redmond**	
Staff Contacts:	Jeff Churchill, Long Range Planning Manager	425-556-2492

TECHNICAL COMMITTEE COMPLIANCE REVIEW AND RECOMMENDATION

Technical Committee shall make a recommendation to the Planning Commission for all Type VI reviews (RZC 21.76.060.E). The Technical Committee's recommendation shall be based on the decision criteria set forth in the Redmond Zoning Code. Review Criteria: *RZC 21.76.070.AE Zoning Code Amendment -Text*

REDMOND ZONING CODE AMENDMENT SUMMARY

The City of Redmond is proposing amendments to the Redmond Zoning Code (RZC) to clarify various requirements to improve usability of the RZC for staff, customers, and community members. The amendments are summarized in the table below.

Chapter	Amendment Summary	Rationale
RZC 21.40 Parking Standards	Clarifies that change of use is not a trigger for requiring additional parking.	Removes barrier to re-tenanting existing space.
RZC 21.76 Review Procedures	Correct error concerning public hearings for Type V permits.	Corrects error.
RZC 21.78 Definitions	Add definition for "culvert" where none exists.	Ensures all code users have common understanding of the term.

RZC 21.76.070.AE – TEXT AMENDMENT CRITERIA	**MEETS/ DOES NOT MEET**
All amendments to the RZC processed under this section shall be in conformance with the Comprehensive Plan.	Meets

STATE ENVIRONMENTAL POLICY ACT (SEPA)

The lead agency for this proposal has determined that the requirements of environmental analysis, protection, and mitigation measures have been adequately addressed through the City's regulations and Comprehensive Plan together with applicable state and federal laws. Additionally, the lead agency has determined that the proposal does not have a probable significant adverse impact on the environment as described under SEPA. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2). This decision was made after review of a completed environmental checklist and other information on file with the lead agency.

- In accordance with WAC 197-11-340(2) an opportunity for comment and appeal period was provided from May 28 to June 11, 2025.

DEPARTMENT OF COMMERCE NOTIFICATION

The City notified the Washington State Department of Commerce of its intent to adopt amendments to development regulations on May 21, 2025.

STAFF RECOMMENDATION

Based on the compliance review of the decision criteria set forth in RZC 21.76.070.AE Zoning Code Amendment – Text, staff recommends approval of the proposed amendments. Staff compliance review and analysis is provided in Attachment A.

TECHNICAL COMMITTEE RECOMMENDATION

The Technical Committee has reviewed the proposed amendments identified in Attachment B and finds the amendments to be consistent with review criteria in RZC 21.76.070.AE Zoning Code Amendment – Text.

REVIEWED AND APPROVED BY

Carol Helland,
Planning and Community Development Director

Aaron Bert,
Public Works Director

Attachments

A. Staff Compliance Review and Analysis
B. Proposed Redmond Zoning Code Amendments

Redmond Zoning Code Text Amendment Criteria (RZC 21.76.070.AE)

CRITERION	ANALYSIS
All amendments to the RZC processed under this section shall be in conformance with the Comprehensive Plan.	Meets. The proposed amendments correct errors and improve code clarity. Making the amendments is consistent with Comprehensive Plan policy PI-17, which reads: *Prepare and maintain development regulations that implement Redmond's Comprehensive Plan and include all significant development requirements. Ensure that the regulations are clearly written and can be efficiently and effectively carried out. Avoid duplicative or inconsistent requirements. Ensure that the development regulations can be accessed, understood, and used to the greatest extent possible by all people.*

REDMOND ZONING CODE

Code Amendment Summary

Non-Conforming Parking

Subject Matter Expert	*Jeff Churchill*
Author	*Jeff Churchill*
Policy Basis for Amendment	*TR-35*
Relevant Code Portions	RZC 21.40.010.C.1

Proposed Amendment Overview

The amendment clarifies that on sites with non-conforming parking quantities, a change of use is not a trigger for requiring additional parking if there is no increase in size of the structure and no increase in the degree of non-conformity.

Rationale

- Removes barrier to re-tenanting existing space.
- Consistent with Comprehensive Plan policy TR-35 concerning prioritizing space for people, housing, jobs, services, recreation, amenities, and environmental sustainability.

Key Decision Points (as applicable)

- N/A

Stakeholder Feedback to Date

- None

EXISTING CODE:

C.1. Nonconforming Parking.

a. A development that met the parking requirements in effect at the time it was approved but that does not have sufficient parking spaces to meet the current requirements of this chapter, may continue to operate with the parking deficiency as long as no enlargement is made that would require additional parking spaces;

b. When a development with nonconforming parking is enlarged so as to require additional parking spaces, the requirements of this chapter shall apply only to the enlargement;

c. When a preexisting building with nonconforming parking is remodeled or rehabilitated but not enlarged, the existing use of the building may continue without providing additional parking. In the event that the land use is increased by an addition of building square footage, the minimum level of parking required, including bicycle parking required by this chapter, consistent with the increased land use affected by the change must be

provided, or an approved Mobility Management Program, as provided in RZC 21.52.020, Mobility Management Program, must be implemented for the site that effectively reduces parking demand;

d. When additional uses are placed on the same lot with the nonconforming parking or an enlarged lot of which the lot with nonconforming parking is a part, the requirements of this chapter shall apply only to the additional use; and

e. *Repealed.*

f. *Parking in Downtown, Overlake, and Marymoor Design Districts.*

i. Developments with nonconforming parking shall not be required to provide additional parking spaces when a change of use occurs or minor improvements are performed; provided, that the change of use or minor improvement does not enlarge the structure or increase the amount of nonconformity.

ii. Developments, sites, and structures where a portion of the sites and/or structures have been obtained under threat of condemnation shall not be required to provide additional parking spaces than that which was sufficient to meet the requirements in place during the most recent development or construction of the site.

WORKING AMENDMENT:

C.1. Nonconforming Parking.

a. A development that met the parking requirements in effect at the time it was approved but that does not have sufficient parking spaces to meet the current requirements of this chapter, may continue to operate with the parking deficiency as long as no enlargement is made that would require additional parking spaces;

b. When a development with nonconforming parking is enlarged so as to require additional parking spaces, the requirements of this chapter shall apply only to the enlargement;

c. When a preexisting building with nonconforming parking is remodeled or rehabilitated but not enlarged, the existing use of the building may continue without providing additional parking. In the event that the land use is increased by an addition of building square footage, the minimum level of parking required, including bicycle parking required by this chapter, consistent with the increased land use affected by the change must be provided, or an approved Mobility Management Program, as provided in RZC 21.52.020, Mobility Management Program, must be implemented for the site that effectively reduces parking demand;

d. When additional uses are placed on the same lot with the nonconforming parking or an enlarged lot of which the lot with nonconforming parking is a part, the requirements of this chapter shall apply only to the additional use; and

~~e. Repealed.~~

~~f. Parking in Downtown, Overlake, and Marymoor Design Districts.~~

e. ~~i.~~ Developments with nonconforming parking shall not be required to provide additional parking spaces when a change of use occurs or minor improvements are performed; provided, that the change of use or minor improvement does not enlarge the structure or increase the amount of nonconformity.

f. ~~ii.~~ Developments, sites, and structures **in Downtown, Overlake, and Marymoor Village** where a portion of the sites and/or structures have been obtained under threat of condemnation shall not be required to provide additional parking spaces than that which was sufficient to meet the requirements in place during the most recent development or construction of the site.

REDMOND ZONING CODE

Code Amendment Summary

Public Hearings for Type V Permits

Subject Matter Expert	*Carol Helland*
Author	*Jeff Churchill*
Policy Basis for Amendment	*PI-17 concerning clear development regulations.*
Relevant Code Portions	Table 21.76.050A

Proposed Amendment Overview

The amendment corrects an error concerning when public hearings are required.

Rationale

- Table 21.76.050A incorrectly states that no public hearing is held for Type V permit applications.
- This contradicts the language in RZC 21.76.050.J.

Key Decision Points (as applicable)

- N/A

Stakeholder Feedback to Date

- None

EXISTING CODE:

Table 21.76.050A
Permit Types

	Permit Type					
	Type I Administrative	**Type II Administrative**	**Type III Quasi-Judicial**	**Type IV Quasi-Judicial**	**Type V Quasi-Judicial**	**Type VI Legislative**
Level of Impact and Level of Discretion Exercised by Decision Maker	Least level of impact or change to policy/regulation. Least level of discretion.					Potential for greatest level of impact due to changes in regulation or policy. Greatest level of discretion.
Input Sought	Minimal-generally no public notice required. No public hearing.	Notice of Application provided. No public hearing. Neighborhood meeting only required for short plats meeting certain criteria.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	No	Notice of Public Hearing provided.

Public Hearing Prior to Decision?	No	No	Yes, Hearing Examiner (or Landmark Commission)[2]	Yes, Hearing Examiner	No	Yes, Planning Commission
Decision Maker	Appropriate Department	Technical Committee	Hearing Examiner (or Landmark Commission)[2]	City Council	City Council	City Council
Administrative Appeal Body	Hearing Examiner (Hearing Examiner decision on appeal may be appealed to Superior Court.)	Hearing Examiner[1](Hearing Examiner decision on appeal may be appealed to Superior Court.)	None (decision appealable to Superior Court)[1] Hearing Examiner[3] (Hearing Examiner decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)

TABLE NOTES:

1. Shoreline Substantial Development Permits, Shoreline Variances, and Shoreline Conditional Use Permits are appealable directly to the State Shorelines Hearings Board. Use Permits are appealable directly to the State Shorelines Hearings Board.

2. Landmark Commission makes decisions for Certificate of Appropriateness Level III permits.

3. Only for decision by Landmark Commission

WORKING AMENDMENT:

Table 21.76.050A
Permit Types

	Permit Type					
	Type I Administrative	**Type II Administrative**	**Type III Quasi-Judicial**	**Type IV Quasi-Judicial**	**Type V Quasi-Judicial**	**Type VI Legislative**
Level of Impact and Level of Discretion Exercised by Decision Maker	Least level of impact or change to policy/regulation. Least level of discretion.					Potential for greatest level of impact due to changes in regulation or policy. Greatest level of discretion.
Input Sought	Minimal-generally no public notice required. No public hearing.	Notice of Application provided. No public hearing. Neighborhood meeting only required for short plats meeting certain criteria.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	No	Notice of Public Hearing provided.
Public Hearing Prior to Decision?	No	No	Yes, Hearing Examiner (or Landmark Commission)[2]	Yes, Hearing Examiner	Yes	Yes, Planning Commission
Decision Maker	Appropriate Department	Technical Committee	Hearing Examiner (or Landmark Commission)[2]	City Council	City Council	City Council
Administrative Appeal Body	Hearing Examiner (Hearing Examiner decision on appeal may be appealed to Superior Court.)	Hearing Examiner[1](Hearing Examiner decision on appeal may be appealed to Superior Court.)	None (decision appealable to Superior Court)[1] Hearing Examiner[3] (Hearing Examiner decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)

TABLE NOTES:

1. Shoreline Substantial Development Permits, Shoreline Variances, and Shoreline Conditional Use Permits are appealable directly to the State Shorelines Hearings Board. Use Permits are appealable directly to the State Shorelines Hearings Board.

2. Landmark Commission makes decisions for Certificate of Appropriateness Level III permits.

3. Only for decision by Landmark Commission

REDMOND ZONING CODE

Code Amendment Summary

Definition of Culvert

Subject Matter Expert	*Doug De Vries, Cindy Wellborn*
Author	*Lauren Alpert*
Other Key Staff	*N/A*
Policy Basis for Amendment	*Provide clarity to stakeholders including applicants, city leaders, hearing examiner, and staff. The definition also in compliance with the Washington State regulations.*
Relevant Code Portions	*Article VIII Definitions (21.78) C definitions* *21.08.147, 21.64.020, 21.14.070, 21.64.020.D.3,21.14.070* *Definition for In-Water Structure*

Proposed Amendment Overview

- Adds definition to 21.78 for culverts

Rationale

- Adding clarity for users of the code

Research Methods and Findings (as applicable)

- It complies with WA and Federal regulations

Key Decision Points (as applicable)

- Use bulleted list to highlight the Team's most significant decision points; sub bullets are ok

Stakeholder Feedback to Date

- Include no more than 3 items; sub bullets are ok

EXISTING CODE:

No definition currently exists

WORKING AMENDMENT:

Culvert. A structure, typically under a roadway, rail line, trail or embankment, that is used to convey flow from a natural channel or drainage ditch.

PROPOSED AMENDMENT:

Culvert. A structure or pipe which is designed to convey stormwater through an obstacle such as beneath a road, railway, trail or embankment. Culverts can be classified as either fish passage or standard.

Last edited: <date>
Previous revisions: <list of dates>

REDMOND CITY COUNCIL
ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF REDMOND, WASHINGTON, AMENDING TITLE 21 OF THE REDMOND MUNICIPAL CODE, KNOWN AS THE REDMOND ZONING CODE, TO COMPLETE THE 2025 ANNUAL CODE CLEANUP, PROVIDING FOR SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, the Growth Management Act (GMA) requires that comprehensive plans and development regulations shall be subject to continuing evaluation and review; and

WHEREAS, the GMA requires that development regulations be consistent with comprehensive plan policies; and

WHEREAS, Comprehensive Plan policy PI-17 calls for development regulations that are clearly written and can be efficiently and effectively carried out; and

WHEREAS, Comprehensive Plan policy PI-18 calls for permit review processes that are timely and predictable; and

WHEREAS, the City undertakes an annual code cleanup effort consistent with those policies; and

WHEREAS, on May 28, 2025, the City of Redmond issued a Determination of Non-Significance for the 2025 Annual Code Cleanup under the State Environmental Policy Act; and

WHEREAS, state agencies were sent 60-day notices of proposed RZC amendments on May 21, 2025; and

WHEREAS, on May 28 and June 11, 2025, the Planning Commission conducted study sessions for these amendments; and

WHEREAS, on June 11, 2025, the Planning Commission held a public hearing for these amendments during which no testimony was received; and

WHEREAS, the Planning Commission recommended approval of the 2025 Annual Code Cleanup on June 11, 2025, adopted a report documenting its recommendation on June 25, 2025, and subsequently transmitted such recommendation to the City Council for consideration; and

WHEREAS, the City Council reviewed the Planning Commissions' recommendation and received on the recommendation on August 4, 2025; and

WHEREAS, having considered the Planning Commission's recommendations, the City Council desires to amend the Redmond Zoning Code.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Classification. This is a code ordinance.

Section 2. Findings and Conclusions. The City Council hereby adopts the findings and conclusions contained in the associated Planning Commission Report, including all related

attachments and exhibits to those reports, City file no. LAND-2025-00121.

Section 3. RZC Chapter 21.40 Parking Standards Amended. RZC 21.40.010.C.1 is amended as follows:

1. Nonconforming Parking.

   a. A development that met the parking requirements in effect at the time it was approved but that does not have sufficient parking spaces to meet the current requirements of this chapter, may continue to operate with the parking deficiency as long as no enlargement is made that would require additional parking spaces;

   b. When a development with nonconforming parking is enlarged so as to require additional parking spaces, the requirements of this chapter shall apply only to the enlargement;

   c. When a preexisting building with nonconforming parking is remodeled or rehabilitated but not enlarged, the existing use of the building may continue without providing additional parking. In the event that the land use is increased by an addition of building square footage, the minimum level of parking required, including bicycle parking required by this chapter, consistent with the increased land use affected by the change must be

provided, or an approved Mobility Management Program, as provided in RZC 21.52.020, Mobility Management Program, must be implemented for the site that effectively reduces parking demand;

d. When additional uses are placed on the same lot with the nonconforming parking or an enlarged lot of which the lot with nonconforming parking is a part, the requirements of this chapter shall apply only to the additional use; and

[~~e. REPEALED.~~]

[~~f. PARKING IN DOWNTOWN, OVERLAKE, AND MARYMOOR DESIGN DISTRICTS.~~]

e. [~~i.~~] Developments with nonconforming parking shall not be required to provide additional parking spaces when a change of use occurs or minor improvements are performed; provided, that the change of use or minor improvement does not enlarge the structure or increase the amount of nonconformity.

f. [~~ii.~~] Developments, sites, and structures **in Downtown, Overlake, and Marymoor Village** where a portion of the sites and/or structures have been obtained under threat of condemnation shall not be required to provide additional parking spaces than that which was sufficient

to meet the requirements in place during the most recent development or construction of the site.

Section 4. RZC 21.76 Review Procedures Amended. Table 21.76.050A, Permit Types, is amended as follows:

Table 21.76.050A
Permit Types

	Permit Type					
	Type I Administrative	**Type II Administrative**	**Type III Quasi-Judicial**	**Type IV Quasi-Judicial**	**Type V Quasi-Judicial**	**Type VI Legislative**
Level of Impact and Level of Discretion Exercised by Decision Maker	Least level of impact or change to policy/regulation. Least level of discretion.					Potential for greatest level of impact due to changes in regulation or policy. Greatest level of discretion.
Input Sought	Minimal-generally no public notice required. No public hearing.	Notice of Application provided. No public hearing. Neighborhood meeting only required for short plats meeting certain criteria.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	Notice of Application provided. Neighborhood meeting may be required. Public hearing is required.	No	Notice of Public Hearing provided.
Public Hearing Prior to Decision?	No	No	Yes, Hearing Examiner (or Landmark Commission)[2]	Yes, Hearing Examiner	[~~NO~~] **Yes**	Yes, Planning Commission
Decision Maker	Appropriate Department	Technical Committee	Hearing Examiner (or Landmark Commission)[2]	City Council	City Council	City Council

Table 21.76.050A
Permit Types

	Permit Type					
	Type I Administrative	**Type II Administrative**	**Type III Quasi-Judicial**	**Type IV Quasi-Judicial**	**Type V Quasi-Judicial**	**Type VI Legislative**
Administrative Appeal Body	Hearing Examiner (Hearing Examiner decision on appeal may be appealed to Superior Court.)	Hearing Examiner[1](Hearing Examiner decision on appeal may be appealed to Superior Court.)	None (decision appealable to Superior Court)[1] Hearing Examiner[3] (Hearing Examiner decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)	None (decision appealable to Superior Court)

TABLE NOTES:

1. Shoreline Substantial Development Permits, Shoreline Variances, and Shoreline Conditional Use Permits are appealable directly to the State Shorelines Hearings Board. Use Permits are appealable directly to the State Shorelines Hearings Board.

2. Landmark Commission makes decisions for Certificate of Appropriateness Level III permits.

3. Only for decision by Landmark Commission

Section 5. RZC 21.78 Definitions Amended. RZC 21.78.120 C Definitions, is amended to add a definition for "culvert" as follows:

Culvert. A structure, typically under a roadway, rail line, trail or embankment, that is used to convey flow from a natural channel or drainage ditch.

Section 6. Codification of Redmond Zoning Code Amendments. The Administration is directed to codify amendments to the Redmond Zoning Code, and in so doing, update numbering, update

references, correct typographical errors, and apply general formatting standards.

Section 7. Severability. If any section, sentence, clause, or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity of any other section, sentence, clause, or phrase of this ordinance.

Section 8. Effective date. This ordinance shall become five days after its publication, or publication of a summary thereof, in the city's official newspaper, or as otherwise provided by law.

ADOPTED by the Redmond City Council this 2nd day of September, 2025.

CITY OF REDMOND

_____
ANGELA BIRNEY, MAYOR

ATTEST:

_____
CHERYL XANTHOS, MMC, CITY CLERK (SEAL)

APPROVED AS TO FORM:

_____
DANIEL KENNY, CITY ATTORNEY

FILED WITH THE CITY CLERK:
PASSED BY THE CITY COUNCIL:
SIGNED BY THE MAYOR:
PUBLISHED:
EFFECTIVE DATE:
ORDINANCE NO.

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-438
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Planning and Community Development	Carol Helland	425-556-2107

DEPARTMENT STAFF:

Planning and Community Development	Alex Hunt	Senior Planner
Planning and Community Development	David Lee	Planning Manager
Planning and Community Development	Jason Lynch	Deputy Director

TITLE:
Redmond Town Center Master Planned Development and Development Agreement -Quasi Judicial

OVERVIEW STATEMENT:
Review and approve a Type V Quasi-Judicial consolidated review permit for development of a 19.34-acre site in five phases. The proposal includes: Phase 1, expansion of an existing parking structure; Phase 2, two 12-story residential mixed-use buildings with an alternative option for one building to be an office building; Phase 3, an 8-story mixed-use residential building; Phase 4, a 7-story mixed-use residential building; and Phase 5, another 7-story mixed-use residential building. A minimum of 20% of developed residential dwelling units will be affordable units to households making up to 60% of the area median income. Site improvements include streetscape improvements, public plaza/open space, private open space/amenities, landscaping, pedestrian walkways, and vehicular access/circulation.

As a reminder, Quasi-Judicial decisions of the City Council are governed by the Appearance of Fairness Doctrine. Communications outside the scope of a Council meeting must be disclosed and could result in the disqualification of a decision maker if objections to participation are raised by the parties.

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  Comprehensive Plan Policies
  LU-34: Encourage development of the Downtown as a place that:

- Meets community needs for employment, shopping, recreation, civic activities, and cultural and night life opportunities.
- Provides attractive and safe places to live close to amenities, such as restaurants and cafes, a wide selection of stores and services, frequent transit service, and plazas, parks, and art.
- Protects Redmond's drinking water aquifer from contamination and loss of recharge and other natural resources.
- Emphasizes access for pedestrians and bicycles.

HO-6: Identify and implement strategies to meet affordable housing targets identified in the King County Countywide Planning Policies.

HO-10: Foster the creation of complete neighborhoods through housing, transportation, and economic planning, to create clustered places where residents have easy access to homes, jobs, and recreation.

- **Required:**
  Per Redmond Zoning Code ("RZC") Table 21.76.050B, Master Development Plans and Development Agreements are Type V Quasi-Judicial Permits. Consistent with RZC Table 21.76.050A, following a recommendation by the Technical Committee, Type V Permits require a public hearing and decision by City Council.
- **Council Request:**
  N/A
- **Other Key Facts:**
  N/A

OUTCOMES:

The outcomes of the project include the following:

- Expansion of Redmond's housing supply by approximately 675-920 units.
- Addition of new residential and commercial uses adjacent to the Downtown Redmond light rail station, supporting transit-oriented development goals.
- Provision of a publicly accessible open space network, including a linear pedestrian plaza that provides a mid-block connection between the Redmond Town Center shopping area to the Bear Creek Trail.
- Enhanced roadway improvements and pedestrian-oriented design to improve the pedestrian experience and ease of access.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  Notice of Application: February 14, 2024
  Neighborhood Meeting: April 18, 2024
  Public Hearing Notice: TBD, a minimum of 21 days prior to Council hearing
- **Outreach Methods and Results:**
  Notice of Application: Mailed and posted on-site.
  Neighborhood Meeting Notice: Mailed.
  Neighborhood Meeting: Hosted virtually.
  Public Hearing Notice: Mailed and posted on-site.
- **Feedback Summary:**
  During the public comment period for the Notice of Application, ten (10) comments were received on the application. The comments were related to the following:

- Shared parking property rights
- Excess density, building height, and crowding
- Impacts from construction, including parking availability and noise
- Weather protection for commercial shopping area
- Parking demand
- Public art
- Protection of existing tenant base

BUDGET IMPACT:

Total Cost:
Staff working on this project are funded through the adopted budget.

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
0000303 - Development Services

Budget Priority:
Vibrant and Connected

Other budget impacts or additional costs: ☐ **Yes** ☒ **No** ☐ **N/A**
If yes, explain:
N/A

Funding source(s):
N/A

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
N/A	Item has not been presented to Council	N/A

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/23/2025	Study Session	Provide Direction
10/21/2025	Business Meeting, Public Hearing	Approve

Time Constraints:
In order to maintain vesting to the Zoning Code standards under which the project was reviewed, the project must execute the Development Agreement by December 31, 2025, pursuant to RZC 21.10.150.B. The applicant would appreciate a speedy and thorough review of the project.

ANTICIPATED RESULT IF NOT APPROVED:
The site would remain under-developed. The proposed addition of a mixture of residential and commercial uses adjacent to light rail would not occur.

ATTACHMENTS:
Attachment A - Technical Committee Report and Recommendation
Attachment B - Draft Development Agreement and Exhibits
- Exhibit A - Legal Description of Property
- Exhibit B - Depiction of Property
- Exhibit C - Master Plan
- Exhibit D - Fee-in-Lieu Calculation
- Exhibit E - Traffic Impact Analysis

Type V Master Planned Development and Development Agreement
Technical Committee Report

Project Name:	Redmond Town Center Master Planned Development and Development Agreement
Location:	Parcel Nos. 720241-0010, -0020, -0030, and -0050
Project File Numbers:	LAND-2023-00296, LAND-2023-00297, PR-2023-00999
Project Description:	A Master Planned Development and Development Agreement to redevelop the Redmond Town Center Mixed-Use Subarea. The Master Plan consists of five phases and plans for the development of mixed-use, multi-family residential, commercial, and structured parking buildings ranging from 4-12 stories in height.
Applicant:	Mitch Ptacek, GGLO 1301 1st Ave, Unit 301 Seattle, WA 98101
Planner:	Alex Hunt, Senior Planner
Recommendation:	Approval with Conditions

Conclusion in Support of Recommendation: The Technical Committee has found the proposal to be in compliance with the Redmond Zoning Code (RZC), Redmond Comprehensive Plan, and Redmond Municipal Code. The City of Redmond issued a Determination of Non-Significance (DNS) for the subject proposal under the State Environmental Policy Act (SEPA) on December 6, 2024, under File No. SEPA-2023-00298.

Carol V. Helland

Carol V. Helland, Director
Department of Planning and
Community Development

Aaron Bert, Director
Public Works Department

Project Review Authority and Procedures

The City of Redmond **Technical Committee** is comprised of staff from different departments and disciplines who analyze project applications for compliance with City codes and regulations. Based on this analysis, the Technical Committee provides responses, conclusions, and recommendations (in the form of this report) to the City Council. The City Council will conduct a public hearing to receive public testimony

regarding the proposal and to review the Technical Committee's analysis and recommendations on the Master Planned Development Permit (LAND-2023-00296) and Development Agreement (LAND-2023-00297). Based upon the Technical Committee's recommendations and testimony received at the public hearing, the Council will make the final decision regarding the Master Planned Development Permit and Development Agreement.

Key Dates

Application Date: December 8, 2023
Completeness Date: January 19, 2024
Notice of Application: February 2, 2024
Neighborhood Meeting: April 18, 2024
Date SEPA Determination of Non-Significance Issued: December 6, 2024
SEPA Appeal Deadline: January 6, 2025
Technical Committee Recommendation Meeting: July 23, 2025
Public Hearing Date: Scheduled for October 12, 2025

Report Attachments

1. General Application Forms
2. Notice of Application and Certification of Public Notice
3. Neighborhood Meeting Notice Affidavit
4. Public Comments
5. SEPA Checklist, DNS Certificate of Posting
6. SEPA DNS Public Comments
7. Master Planned Development Design Package
8. Development Agreement
9. Preliminary Civil Plans
10. Drainage Report
11. Phase 1 Traffic Study
12. Phase 2 Traffic Study
13. Transportation Concurrency Application
14. Arborist Report
15. Critical Aquifer Recharge Area Evaluation

I. Proposal Summary

The proposed Master Planned Development (MPD) and Development Agreement (DA) propose development at the existing Redmond Town Center Mixed-Use Subarea while maintaining much of the existing commercial development on the site. The proposal includes five (5) phases of development and associated site improvements as described below. Phases may be developed in any order, provided amenities are delivered congruent with each particular phase.

- **Phase 1** proposes additions to the existing parking garage at the northwest corner of NE 73rd Way and 164th Avenue NE. The proposed changes include

the addition of two stories of additional parking to the existing parking structure for approximately 316 new parking spaces to replace parking lost with the development of existing surface parking areas in subsequent phases. Phase 1 also includes modified ground level public open space at the northeast corner of the parking structure.

- Phase 2 proposes two 12-story buildings immediately south of the existing RTC shopping center where surface parking is currently located. Two options are proposed for the development of Phase 2, and the applicant will select one of the approved options prior to submittal of a Site Plan Entitlement for Phase 2. Associated improvements are proposed with Phase 2, including a publicly accessible linear plaza between the two proposed buildings, bike infrastructure and traffic calming measures to connect to existing bike lanes, and pedestrian crossing and intersection improvements between RTC and the proposed Phase 2 development.
    - Phase 2, Option A consists of two 12-story mixed-use residential buildings with approximately 504 residential units, 378 structured parking spaces, and ground floor commercial uses.
    - Phase 2, Option B consists of one 12-story mixed-use residential building with approximately 252 residential units and 189 structured parking spaces as well as one 12-story mixed-use office building with approximately 245,530 square feet of office space and 255 structured parking spaces with ground floor commercial uses.
- Phase 3 proposes the demolition of the existing BJ's Restaurant building at 7211 166th Ave NE and the construction of an 8-story mixed-use residential building at the northwest corner of Bear Creek Parkway and 166th Avenue NE. The building would contain approximately 136 residential units, 102 structured parking spaces, and ground floor commercial area.
- Phase 4 proposes partial demolition of the commercial spaces at the northwest corner of the RTC shopping center parking garage and proposes the construction of a 7-story mixed-use residential building at the same location with approximately 148 residential units and 16,070 square feet of commercial area.
- Phase 5 proposes partial demolition of the commercial spaces at the northeast corner of the RTC shopping center parking garage and construction of a 7-story mixed-use residential building at the same location with approximately 140 residential units and 14,800 square feet of commercial area.

II. Site Description and Context

The overall project site encompasses approximately 19.34 acres; however, development associated with the proposed MPD will impact approximately 9 acres of land area within the site. The site is generally flat and is located within the Critical Aquifer Recharge Area I (CARA I).

With a Comprehensive Plan Land Use designation of Downtown Mixed Use and zoned as Town Center (TWNC), the site is currently developed with a commercial shopping center, structured parking garages, and surface parking. Town Center is one of the city's primary gathering places. Its mix of shops and restaurants, offices, hotel rooms, and housing brings people together during the day and evenings for planned or casual meetings. Comfortable walking connections from Town Center to the rest of Downtown help both areas thrive. Town Center will continue to develop as a major gathering and entertainment place within the community, connected with accessible and active transportation to Marymoor Park, the rest of Downtown, and the region.

The table below depicts existing zoning and land uses adjacent to the project site:

Direction	Existing Adjacent Land Use(s)	Zone
North	Light rail station, commercial retail	Anderson Park
South	Hotel, Bear Creek Trail	Town Center
East	Office	Town Center
West	Hotel, parking structure, office	Town Center

III. Public Notice and Comment

Requirements for public notice are contained in RZC 21.76.080.

A. Notice of Application:

The Notice of Application for this proposal was published on February 14, 2024. The notice was posted at City Hall, the Redmond Regional Library, and six (6) notice signs were posted on the property. A notice was also mailed to property owners within 500 feet of the site (Attachment 2, Notice of Application and Certificate of Public Notice).

Public Input: During the Notice of Application public comment period and throughout the project review, the City received ten (10) written comments (Attachment 4, Public Comments).

The comments expressed the following concerns or requests for consideration and staff has included responses below:

1. Lake Washington School District (LWSD) expressed concerns that the Phase 1 construction and additions to the parking structure would infringe upon an existing parking easement agreement between Redmond Town Center property ownership and LWSD.

Staff Response: The MPD and DA as conditioned would comply with City of Redmond parking requirements. While the City of Redmond expects the applicant to act in good faith to uphold existing agreements, the City is not a party to the above referenced agreement and does not have a responsibility to enforce the terms of that agreement as part of the MPD and DA review process. A subsequent Site Plan Entitlement (SPE) application will be required prior to commencement of any construction, at which time an additional Notice of Application and public comment period will be provided prior to SPE approval.

2. Comments expressed concerns with inappropriate density and crowding. Specific concerns were raised on the ability of the Redmond Fire Department to serve taller buildings.

   Staff Response: In 2023, Redmond City Council adopted amendments to the RZC to allow for taller buildings in the Town Center Zone based upon a set of incentives, including providing higher amounts of affordable housing. The amendments were based on several key policy goals of the City Council, including allowing higher residential densities in areas with access to light rail stations and supporting economic development in urban centers by achieving higher residential developments. The MPD application is consistent with the height and density requirements allowed in the RZC for development in the Town Center Zone. With regards to Fire Department requirements, future Site Plan Entitlement and Building Permit applications will be reviewed for site-specific compliance with all applicable Fire Code requirements.

3. Comments expressed concerns with construction noise and disruptions, including impacts to parking availability during construction.

   Staff Response: The applicant will be required to comply with construction noise hours and requirements established in Redmond Municipal Code (RMC) Section 6.36. Following a decision on the MPD and DA applications, individual permits shall be obtained for each phase through the Site Plan Entitlement and Building Permit process. Temporary traffic control and parking plans will be prepared and reviewed in conjunction with Site Plan Entitlement and related Building Permit applications.

4. Comments indicated that lack of weather protection is a cause of reduced foot traffic during rainy months.

   Staff Response: As part of the proposed public benefits outlined in the DA, the applicant proposes enhanced weather protection.

5. Questions on how new residential developments will meet parking demand and the availability of electric vehicle charging infrastructure.

   Staff Response: The Phase 1 expansion of the existing parking structure will mitigate for the loss of commercial surface parking, and additional structured parking will be provided in conjunction with the Phase 2 mixed-use buildings. The proposed parking complies with parking quantity requirement established in RZC 21.40. Quantity and availability of electric vehicle infrastructure will be further defined in the Site Plan Entitlement and construction permits for each individual phase.

6. Comments expressing a support for keeping existing public art, specifically the bear sculptures by Georgia Gerber, at Redmond Town Center.

   Staff Response: Comments have been shared with the applicant. At this time, staff is not aware of any plans to remove any existing public art.

7. Comments emphasizing the importance of supporting the existing commercial tenant base at Redmond Town Center.

   Staff Response: Some of the objectives of the application under review are to bring additional residents and employees to the site, enliven the Redmond Town Center site, and provide a more engaging retail experience. In addition, the Phase 1 expansion of the parking garage is intended to mitigate the loss of surface parking in Phase 2, so parking options will continue to exist for retail customers who arrive to the site by car. The enlivened retail experience and new structured parking will provide for the continued success of the existing commercial tenant base at Redmond Town Center.

B. Neighborhood Meeting:

Pursuant to the requirements of RZC 21.76.060.C, a neighborhood meeting was held on April 18, 2024 (Attachment 3, Neighborhood Meeting Notice).

IV. State Environmental Policy Act

The State Environmental Policy Act (SEPA) requires applicants to disclose potential impacts to the environment that may occur as a result of their project. A Determination of Non-Significance (DNS) was issued for this project on December 6, 2024 under File No. SEPA-2023-00298 (Attachment 5, SEPA Application Form, DNS Certificate of Posting). The applicant received comments on the SEPA DNS from LWSD (Attachment 6, SEPA DNS Public Comments). LWSD expressed concerns that the development affecting the Phase 1 parking structure would infringe upon the secured parking agreement between the property owner and LWSD.

V. Compliance with Development Regulations

A. Building Height – Exceptional Amenities for Additional Height (EAAH)

RZC 21.10.050 establishes development regulations applicable to the Town Center Zone. The maximum allowable building height with incentives is 12 stories, and in order to achieve that maximum height, development must comply with the EEAH requirements established in RZC 21.10.050.D.

Finding: The project as proposed complies with the EAAH incentive requirements to achieve the maximum 12 story height limit (See Attachment 7, MPD Plan Set, Page 23). A minimum of 20% of new residential units will be affordable at 60% of Area Median Income (AMI). Of the affordable units, a minimum 10% shall be two-bedroom units, and a minimum 5% shall be 3-bedroom units. All affordable units shall be electric ready, meaning that the units have the necessary wiring and electrical capacity to support converting to all electric equipment in the future. Additionally, 10% or 7,000 square feet of new ground level commercial space within the project boundary shall be reserved for small and local businesses, and the lesser of 25% or 4,000 square feet of new commercial spaces shall be no larger than 1,000 square feet to support startup and new businesses. Finally, new buildings will achieve LEED Platinum or equivalent. In order to comply with the EEAH incentives, all new development across all phases shall provide the proposed exceptional amenities.

B. Development Density

RZC Table 21.10.130A establishes residential density requirements for Downtown Zones. Sites within the Town Center Zone that are greater than 12,000 square feet and have a minimum site width of 120 feet shall not be regulated by a maximum number of dwelling units per acre.

Finding: The proposed project meets the residential density requirements of the Town Center Zone. Because the project site exceeds the 12,000 square feet and 120 feet minimum width, a maximum number of dwelling units is not applied. Density shall not be regulated by a maximum number of dwelling units, but by the application of bulk, height, parking, and all other applicable development standards.

C. Pedestrian Generating Uses

RZC Table 21.10.130A dictates that new development must retain or replace existing pedestrian generating and retail sales uses. Development may modify areas allocated to pedestrian generating and retail sales uses, subject to a minimum floor area to be negotiated as a condition to any Development Agreement.

Finding: The proposal complies with regulations related to the retention of pedestrian generating uses. In the absence of a definition provided in the RZC, the Draft Development Agreement defines 'pedestrian generating use' to include the following subset of uses: Retail; Food and Beverage; personal service uses (subset of Business and Service); copy centers and parcel and mail centers; the customer service portion of financial institutions; Arts, Entertainment, Recreation, and Assembly, Amusement, Sports, Recreation Establishments, and Athletic Clubs and Fitness Centers. The existing project site contains 267,958 square feet of pedestrian generating leasable square footage. As negotiated through the Development Agreement process, no less than 170,000 square feet of pedestrian generating uses shall exist within the RTC Master Plan project area at any given time.

D. Tree Protection & Replacement

RZC 21.72.060 requires a minimum of 35% of all significant trees to be retained. Significant trees are those trees with a diameter at breast height (dbh) of 6" or greater. Any trees being removed shall be replaced, with one (1) replacement tree required per tree removed, or in the case of landmark trees (those trees with 30" or greater dbh), three (3) replacement trees required per removed landmark tree.

Finding:

The MPD and DA comply with applicable tree retention and replacement requirements (See Attachment 7, MPD Plans, Page 70). The applicant is proposing enhanced tree preservation and will retain a minimum of 45% of significant trees on-site throughout all phases of the MPD. Tree protection and replacement is required in conjunction with RZC 21.72 and will be reviewed with Site Plan Entitlements for individual development phases.

E. Critical Areas

This property is in the Critical Aquifer Recharge Area I as defined by RZC 21.64.050 and as required by the Washington State Growth Management Act (RCW 36.70A.172), water quality standards for ground waters of the State of Washington (WAC 173-200) and Washington State Public Water System Standards (WAC 246-290).

Finding:

The Critical Area protection requirements of RZC 21.64.050 have been satisfied and the proposal has been conditioned in compliance with city codes to protect the Critical Aquifer Recharge Area. Provisions on dewatering, groundwater and wellhead protection are a requirement of this agreement. The Critical Aquifer Recharge Area Evaluation (December 2023) states that dewatering will likely not be necessary, but if it is needed, the project will meet requirements of RMC 13.25

(Temporary Construction Dewatering). As conditioned, the project will meet the requirements of RZC 21.64.050 and RMC 13.07.

F. Open Space

RZC 21.10.130.E establishes requirements related to residential usable open space in Downtown Zones. At least 100 square feet per residential unit of common usable open space shall be provided in the development, up to a maximum area equivalent to 20% of the site. Private usable open space shall be provided in the form of an attached patio or balcony for each unit per Table 21.10.130C.

Finding

As conditioned, the project complies with open space requirements. For each project phase providing residential units, the applicant has demonstrated in the conceptual floor plans how the minimum quantity of common residential usable space will be provided. As a condition of project approval, each phase developing residential units will be required to demonstrate at the time of Site Plan Entitlement submittal how private open space will be provided in compliance with RZC requirements.

G. Parking

RZC 21.40 establishes parking requirements, and RZC 21.10.050.D establishes maximum parking quantities for projects utilizing the EAAH incentive program.

Finding

As proposed, the project complies with parking requirements established in the RZC. New vehicle parking spaces will be provided as above ground structured parking in conjunction with the development of individual MPD phases. Specific design of parking facilities and parking stall quantities will be re-reviewed with Site Plan Entitlement applications to verify and ensure continued compliance with parking requirements as vested under the Development Agreement.

H. Affordable Housing

Affordable housing requirements for new residential development are established in RZC 21.20. New development is required to provide 10% of units as affordable to households making 80% AMI or less.

Finding

As proposed, the project complies with the City's affordable housing requirements. The applicant is pursuing the EAAH incentives for additional allowable building height, meaning they will be providing a higher quantity and deeper level of affordability than is typically required under RZC 21.20.

I. Transportation

RZC 21.17 requires the installation of transportation facilities and services necessary to support this development.

Finding:

As conditioned, the proposal will meet all requirements, per RZC 21.17. This Master Planned Development is planned to be developed in five (5) phases. Phase 1 would include a 2-story addition to an existing mixed-use parking garage, and ground level public open space improvements. Phases 2 and 3 would include two new 12-story mixed use buildings and one new 7-story residential building. Phases 4 and 5 would include two 7-story mixed use buildings, new streetscape and pedestrian plaza at NE 74th Street. Phasing of the improvements are proposed to be as follows:

- In Phase 2 of this Master Plan, an additional bicycle lane will be added at the NE 74th Street frontage, at west of 164th Avenue NE.
- In Phase 2 of this Master Plan, for the new 12-story Building 2A, road improvements will take place on three sides of this building – the NE 72nd Way, NE 73rd Way, and 166th Avenue NE frontages. Walkway and landscaping improvements will take place on all four sides of the building. The parking access for this building will be at the 166th Avenue NE frontage. The loading entry and trash pick-up will be at the NE 73rd Way frontage. A total of seven pedestrian entries are proposed, located on all four sides of this building.
- Also in Phase 2 of this Master Plan, for the new 12-story Building 2B, road improvements will take place on three sides of this building – the NE 72nd Way, NE 73rd Way, and 164th Avenue NE frontages. Walkway and landscaping improvements will take place on all four sides of the building. The parking access for this building will be at the 164th Avenue NE frontage. The loading entry and trash pick-up will be at the NE 73rd Way frontage. A total of seven pedestrian entries are proposed, located on all four sides of this building.
- Raised mid-block crossings will be installed at NE 72nd Way and NE 73rd Way, located between Buildings 2A & 2B.
- In Phase 3 of this Master Plan, for the new 7-story building, road improvements will take place on two sides of this building – the NE 72nd Way and 166th Avenue NE frontages. Landscaping improvements will take place on three sides of the building – the Bear Creek Parkway, NE 72nd Way and 166th Avenue NE frontages. Walkway improvements will take place on all four sides of the building. The parking access and loading entry for this building will be at the NE 72nd Way frontage. A total of four pedestrian entries are proposed, located on two sides of this building.
- As part of Phase 3 of this Master Plan, a raised mid-block crossing and ADA-compliant ramps are proposed to be installed at Bear Creek Parkway, just

south of the new building. Due to the anticipated significant increase of pedestrian traffic at Bear Creek Parkway resulting from the Redmond Town Center Master Planned development, additional pedestrian safety measures will be required during the site plan entitlement review process. Pending completion of the City's Safe Speed Study and Audit in 2026 and subsequent evaluation of vehicles speeds and safety improvements on Bear Creek Parkway, an alternative pedestrian enhancement other than the raised mid-block crossing may be considered. Pedestrian safety measures may include, but are not limited to, installing rectangular rapid flashing beacons (RRFBs), modifying road channelization, enhancing median to improve sight distance, and implementing pedestrian safety upgrades at the intersections of Bear Creek Parkway with 164th Avenue NE and 166th Avenue NE.

- In Phase 4 of this Master Plan, a new 7-story mixed use building will be constructed adjacent to the southeast corner of the NE 76th Street and 164th Avenue NE intersection. Existing parking structure entry/egress is located south of this new building accessing 164th Avenue NE, and will be improved as part of this development. Walkway and landscaping improvements will take place on two sides of the building – the NE 76th Street and 164th Avenue NE frontages. New parking garage stair and sidewalk access improvements will take place east of this new building, at the NE 76th Street frontage.
- In Phase 5 of this Master Plan, a new 7-story mixed use building will be constructed adjacent to the southwest corner of the NE 76th Street and 166th Avenue NE intersection. Existing parking structure entry/egress is located south of this new building accessing 166th Avenue NE, and will be improved as part of this development. Walkway and landscaping improvements will take place on two sides of the building – the NE 76th Street and 166th Avenue NE frontages. New parking garage stair and sidewalk access improvements will take place west of this new building, at the NE 76th Street frontage.
- Also in Phases 4 and 5 of this Master Plan, new streetscape and pedestrian plaza improvements will take place at NE 74th Street. Intersection improvements and raised pedestrian crossings will take place at three intersections – the NE 76th Street and 166th Avenue NE intersection, the NE 74th Street and 164th Avenue NE intersection, and the NE 74th Street and 166th Avenue NE intersection. At the NE 76th Street frontage, connection to the NE 76th Street Sound Transit Light Rail Station will be made, and existing parking structure entry/egress will also be improved.

J. Stormwater

The Redmond Municipal Code (RMC 15.24) and the 2022 Stormwater Technical Notebook (STN) requires that projects meet the applicable minimum requirements based on threshold requirements. Redmond Zoning Code (RZC

21.17.010.E) and (RZC 21.74.020) requires that all projects and developments are
required to be served by adequate surface water management system complying with the policies of the Comprehensive Plan and meeting the requirements of RMC Chapter 15.24, Clearing and Grading, and Storm Water Management, and the Storm water Technical Notebook and Construction Manuals.

Finding:

The proposed project is located within the Downtown Regional Facility Surcharge Area, and therefore flow control is not required per the 2022 City of Redmond Stormwater Technical Notebook. The proposed Phase 2 buildings will be constructed in place of an existing parking lot and will require removal of an existing 36-inch concrete storm pipe. A new 48-inch storm pipe will be installed in the access road north of the Phase 2 buildings and all current stormwater connections to the 36-inch storm pipe will be connected to the new 48-inch storm pipe. Phases 1,3,4 and 5 will continue to tie into the existing and updated storm conveyance system and will discharge to the Sammamish River. Additional water quantity facilities, catch basins, and storm pipes will be constructed for each phase, which will maintain the existing outlet location at 164th Ave NE and NE 73rd Way. Water quality needs will be met by an existing water quality pond adjacent to the outfall location to the Sammamish River.

As conditioned, the proposal will meet all requirements per RZC 21.64 and RMC 15.24.

K. Utilities

Per RZC 21.17.010.D, all developments shall be served by adequate public water and sanitary sewer systems approved by the City and meeting the design and construction requirements of the City's Technical Design and Construction Manuals.

Finding

The proposed project is located within an established downtown shopping center area. The existing 12-inch looped water supply system has sufficient capacity to serve the new buildings. As part of Phase 2, the developer will relocate the existing 12-inch water main along NE 73rd Street between 164th Avenue NE and 166th Avenue NE. Each new building will require one or two domestic water services and a fire line connection to the City's water main. Approximately 1,080 feet of the existing 8-inch sewer main along 164th Avenue NE and 1,050 feet along 166th Avenue NE will be upsized to 12-inch sewer mains. An additional sewer connection charge shall be paid prior to occupancy for each phase of the two new buildings.

As conditioned, the proposal will meet all applicable requirements of RZC 21.17.010.

VI. Criteria Applicable to all Land Use Permits:

Proposed land use actions within the City must comply with the criteria listed in RZC 21.76.070.B.3.a. These criteria are applicable to all land use permits to ensure overall consistency between proposed land use permits, applicable regulations, and the Comprehensive Plan. Staff's analysis of whether the proposal meets the decision criteria is below.

1. A proposed project's consistency with the City's development regulations shall be determined by consideration of:
   A. The type of land use;
   B. The level of development, such as units per acre or other measures of density;
   C. Availability of infrastructure, including public facilities and services needed to serve the development; and
   D. The character of the development, such as development standards.

   Staff Response: The MPD proposes a mix of land uses including multi-family residential, retail, restaurant, business and service, and office. All of the land uses proposed under the MPD application are permitted uses in the Town Center Zone pursuant to RZC 21.10.050. The maximum level of development density anticipated under all phases of the MPD is consistent with the density permitted for a site of its size in the Town Center Zone, as detailed in Section V above. Staff have reviewed the MPD for availability of infrastructure and the character of development as applied through RZC development regulations. As conditioned, the project is consistent with the above criteria. Additional technical review will be conducted at a higher level of detail in conjunction with the individual Site Plan Entitlement applications that will be submitted for each phase of development.

2. Upon review of a land use permit and accompanying site plan, the decision maker shall determine whether building design and/or site design complies with the following provisions:
   A. The Comprehensive Plan, RZC 21.02, *Preface,* RZC Article I, *Zone-Based Regulations,* RZC Article II, *Citywide Regulations,* and the Appendices that carry out these titles;
   B. The provisions of RMC Title 15, *Buildings and Construction*, that affect building location and general site design;
   C. The Washington State Environmental Policy Act (SEPA) if not otherwise satisfied;

D. RZC Article VI, *Review Procedures,* to the extent it provides the procedures to ensure compliance with the requirements in subsections B.3.a. ii. B and B.3.a.ii.C of this section;
E. Both within and outside the Transition Overlays, decision makers authorized by the RZC to decide upon discretionary approvals may condition such approvals and development permits, including but not limited to site plan approvals, to minimize adverse impacts on other properties and uses, and to carry out the policies of the Comprehensive Plan.

Staff Response: Technical Review staff have reviewed the proposed project and determined that it complies with the Comprehensive Plan, RZC, and RMC. The review of the applications has been consistent with RZC Article VI, Review Procedures, for a Type V Master Plan and Development Agreement. All associated future Site Plan Entitlement, Site Permit, and Building Permit applications will be reviewed for compliance at time of submittal. The proposal complies with SEPA requirements as described in Section IV.

The proposed development specifically addresses the following Comprehensive Plan goals and policies:

Comprehensive Plan Policy	Compliance Analysis
LU-34-Downtown Mixed-Use Designation: Encourage development of the Downtown as a place that:	
1. Meets community needs for employment, shopping, recreation, civic activities, and cultural and night life opportunities.	The proposed MPD builds off the existing community asset that is the Redmond Town Center and plans for additional employment, shopping, and recreation opportunities through additional commercial buildings that are easily accessed and integrated into the overall site design.
2. Provides attractive and safe places to live close to amenities, such as restaurants and cafes, a wide selection of stores and services, frequent transit service, and plazas, parks, and art.	Redmond Town Center is one of the primary commercial and shopping hubs of the Downtown area and will provide additional opportunities for dining, shopping, and informal gathering as a result of the MPD. The MPD also provides hundreds of housing units on-site that are close to those amenities offered by Redmond Town Center.
3. Protects Redmond's drinking water aquifer from contamination and loss of recharge and other natural resources.	The project avoids impacts to the Critical Aquifer Recharge Area by providing all proposed structured parking above grade and eliminating the need to excavate into the aquifer recharge area for underground parking.

Comprehensive Plan Policy	Compliance Analysis
4. Emphasizes access for pedestrians and bicycles.	The MPD proposes enhanced pedestrian and bicycle access throughout and around the site as a public benefit associated with new development.
HO-6: Identify and implement strategies to meet affordable housing targets identified in the King County Countywide Planning Policies.	As part of the incentive program allowing for 12-story buildings 20 percent of all new dwelling units will be affordable to households making 60% AMI.
HO-10: Foster the creation of complete neighborhoods through housing, transportation, and economic planning, to create clustered places where residents have easy access to homes, jobs, and recreation.	The proposed MPD provides additional housing, employment, shopping, and recreation opportunities in a cluster around a high-capacity light rail station, thereby contributing to a complete neighborhood.

VII. Master Planned Development Decision Criteria

Per RZC 21.76.070.P.5, the MPD shall meet the following criteria:

1. All elements of the MPD shall support and be consistent with the RZC and all applicable Comprehensive Plan policies.

   Staff Response: Staff has reviewed the proposal for compliance with the RZC and Comprehensive Plan as discussed in Section V and Section VI above.

2. MPDs proposed in the Overlake Metro Center shall be consistent with the Overlake policies in the Redmond Comprehensive Plan and shall include the items listed in RZC 21.76.070.P.5.d in addition to the following…

   Staff Response: Not applicable. The proposal is not located within the Overlake Metro Center.

3. MPDs proposed in the Marymoor Village Center shall include a phasing plan for bonus features and affordable housing as described in RZC 21.76.070.P.5.b.iii in addition to the items listed in RZC 21.76.070.P.5.d.

   Staff Response: Not applicable. The project is not located within the Marymoor Village Center.

4. All MPDs shall include the items listed below:

   i. A design concept that is in conformance with all applicable Comprehensive Plan policies and development regulations;

ii. Conceptual site plan indicating all proposed land uses (architectural design, exact building shapes, locations, and other detailed information required in a site plan shall not be required);

iii. Transportation and circulation plan indicating the layout and conceptual design of all streets, pedestrian pathways, parking, and location of transit facilities (as available), in plan view and cross section for streets (cross sections only required for projects in the Downtown);

iv. Location of proposed space for parks, open space, and any cultural facilities;

v. Phasing plan describing anticipated time frames for development and showing that completion of affordable housing shall be commensurate with the progress on the construction of the development;

vi. Location of any environmentally critical areas;

vii. Landscape and tree retention concepts, including consideration of the health and structural stability of retained trees, as determined by an arborist report;

viii. Preliminary plan indicating required connections to adjacent properties for transportation and open space systems;

ix. Overall approach to sustainable design, including consideration of the use of environmentally sustainable materials such as permeable pavement, where possible; and

x. Preliminary plan for other major infrastructure improvements (may be waived by the Technical Committee for sites in Overlake smaller than three acres).

Staff Response: The MPD application materials included the above listed items and was deemed a complete application on January 19, 2024.

5. The master plan must comply with all site requirements or design guidelines that would ordinarily apply to projects developed in the underlying zone.

Staff Response: The proposal complies with all standards of the underlying zone. Further review of site requirements and design guidelines shall be reviewed upon submittal of Site Plan Entitlement(s) for each phase.

6. Site requirements and other development standards and regulations shall be administered on the basis of the area controlled by the approved master plan ("plan area"), rather than on a site-by-site basis, provided the approved master plan demonstrates the ability to comply with the requirement in question.

   Staff Response: In its buildout condition, the Master Plan area demonstrates the ability to comply with all applicable development standards and regulations. The MPD was reviewed with respect to the entire development reviewed comprehensively. Further review of site requirements and other development standards will be reviewed upon submittal of Site Plan Entitlement(s) for each phase.

7. Property included in an MPD must be under the same ownership, or there must be a signed agreement establishing control over multiple ownerships.

   Staff Response: The MPD area is under single ownership.

VIII. Development Agreement Decision Criteria

Per RZC 21.76.070.L.3, the Development Agreement shall meet the following criteria:

1. The agreement must be consistent with the applicable development regulations for the property.

   Staff Response: The Development Agreement establishes an agreement between the City and the applicant to provide for coordinated development of the project site. All provisions of the agreement pertaining to development regulations comply with applicable RZC and RMC standards.

2. All impacts of the development must be mitigated by the measures set forth in the agreement or the agreement must provide a mechanism for analyzing and mitigating such impacts as they occur.

   Staff Response: The agreement provides for mitigation of development impacts to infrastructure, including street and right-of-way (ROW) improvements and additional sewer connection charges. The agreement provides for each individual phase of development to mitigate development impacts through the payment of impact fees.

3. The agreement must reserve the City's authority to impose new or different regulations to the extent required by a serious threat to public health and safety.

Staff Response: Section 4.3 of the agreement details the City's reserved right to impose new or different officially adopted regulations to the extent required by a serious threat to public health and safety.

4. The duration of the agreement must be reasonable in light of the anticipated build-out period for the proposed development and the needs of the City.

   Staff Response: Section 5 of the Development Agreement establishes the duration of the agreement, which is ten (10) years with an option to extend for an additional five (5) years. The duration is reasonable for the anticipated build-out period and is consistent with the expiration terms for Master Planned Developments established in RZC 21.

5. The agreement must be in the public interest and provide a public benefit.

   Staff Response: The agreement provides for a suite of public benefits including a 20,000 square foot linear pedestrian plaza, ROW improvements enhancing pedestrian and bicycle connectivity to light rail, enhanced weather protection, and avoidance of impacts to the groundwater aquifer. The agreement provides additional housing and commercial opportunities consistent with the land use vision for the Town Center Zone and is in the public interest.

IX. Vesting/Approval Expiration

This decision is vested to the development regulations in effect at the time of Development Agreement execution, per Section 4 of the Development Agreement (Attachment 8). The MPD approval of this project and Development Agreement shall expire ten years from the date of this decision, unless an approval extension is granted pursuant to Section 5 of the Development Agreement and RZC 21.76.070.P.3.

X. Conditions of Approval

A. Site Specific Conditions of Approval

The following conditions shall be reflected on the Civil Construction Review, unless otherwise noted:

1. Development Engineering - Transportation and Engineering
   Reviewer: Peter Lau, Senior Transportation Engineer
   Phone: 425-556-2715
   Email: plau@redmond.gov

a. **Easements and Dedications.** If appliable, easements and dedications shall be provided for City of Redmond review during the construction drawing review stage and must be finalized for recording before the approval of civil construction plans of each phase. The existing and proposed easements and right-of-way shall be shown on the civil plans. Prior to acceptance of the right(s) of way and/or easement(s) by the City, the developer will be required to remove or subordinate any existing private easements or rights that encumber the property to be dedicated.

At the time of construction, additional easements may be required to accommodate the improvements as constructed.

Code Authority: RZC 21.52.030.G; RMC 12.12

b. **Construction Restoration and Street Overlay.** In order to mitigate damage due to trenching and other work on the impacted areas of Bear Creek Parkway, NE 72nd Way, NE 73rd Way, NE 74th Street, NE 76th Street, 163rd Place NE, 164th Avenue NE and 166th Avenue NE, the asphalt street shall be planed, overlaid, and/or patched, per COR SD 201, 202, 203 and 301. If the Pavement Condition Index (PCI) of the existing pavement is below 70 (as determined by the City's bi-annual pavement survey), the development shall be required to plane and overlay the entire half street along the project frontage at a minimum as determined by the Traffic Operations and Safety Engineering Division in Public Works. Contact Adnan Shabir at 425-556-2776.

Code Authority: RMC 12.08; Redmond Standard Specifications & Details

c. Street Frontage Improvements

i. In Phase 2 of the Master Plan, the frontages along NE 72nd Way and NE 73rd Way would include 11-foot-wide asphalt travel lanes with appropriate tapers, type A-1 concrete curb and gutter, 6-foot-wide planter strips, 8-foot-wide concrete sidewalk, some other various widths of concrete sidewalk and landscape areas, storm drainage, street lights, street trees, street signs and underground utilities including power and telecommunications. The minimum pavement section for the streets shall consist of:

1. 3-inch Hot Mixed Asphalt (HMA) Class ½" PG 58H-22

2. 4-inch of 1-1/4" minus crushed rock base course per WSDOT standard spec 9-03.9(3).

3. Subgrade compacted to 95% compacted maximum density as determined by modified Proctor (ASTMD 1557).

4. Street crown 2% sloped to drain system.

Code Authority: RZC 21.10.150; RZC 21.52.030; RZC 21.17.010; RMC 12.12; RZC Appendix 2.A.2.Table 2; RZC Appendix 2A; Redmond Standard Specifications & Details

ii. In Phase 2 of the Master Plan, the frontages along 164th Avenue NE and 166th Avenue NE would include 11-foot-wide asphalt travel lanes with appropriate tapers, 6-foot-wide bicycle lane, 8-foot-wide parking lane, type A-1 concrete curb and gutter, 13-foot-wide pedestrian areas, storm drainage, street lights, street trees, street signs and underground utilities including power and telecommunications. The minimum pavement section for the streets shall consist of:

1. 3-inch HMA Class ½" PG 58H-22

2. 4-inch of 1-1/4" minus crushed rock base course per WSDOT standard spec 9-03.9(3).

3. Subgrade compacted to 95% compacted maximum density as determined by modified Proctor (ASTMD 1557).

4. Street crown 2% sloped to drain system.

Code Authority: RZC 21.10.150; RZC 21.52.030; RZC 21.17.010; RMC 12.12; RZC Appendix 2.A.2.Table 2; RZC Appendix 2A; Redmond Standard Specifications & Details

iii. In Phase 3 of the Master Plan, the frontage along NE 72nd Way would include 11-foot-wide asphalt travel lanes with appropriate tapers, 8-foot-wide parking lane, type A-1 concrete curb and gutter, between 5-foot-wide to 8-foot-wide planter strips, between 7-foot-wide to 10.5-foot-wide concrete sidewalks, storm drainage, street lights, street trees, street signs and underground utilities including power and telecommunications. The minimum pavement section for the streets shall consist of:

1. 3-inch HMA Class ½" PG 58H-22

2. 4-inch of 1-1/4" minus crushed rock base course per WSDOT standard spec 9-03.9(3).

3. Subgrade compacted to 95% compacted maximum density as determined by modified Proctor (ASTMD 1557).

4. Street crown 2% sloped to drain system.

Code Authority: RZC 21.10.150; RZC 21.52.030; RZC 21.17.010; RMC 12.12; RZC Appendix 2.A.2.Table 2; RZC Appendix 2A; Redmond Standard Specifications & Details

iv. In Phase 3 of the Master Plan, the frontage along 166th Avenue NE must meet current City Standards which include 14-foot-wide asphalt shared travel lanes with appropriate tapers, 12-foot-wide asphalt left turn lane, type A-1 concrete curb and gutter, 4-foot-wide planter strips within 13-foot-wide to 17-foot-wide pedestrian

areas, storm drainage, street lights, street trees, street signs and underground utilities including power and telecommunications. The minimum pavement section for the streets shall consist of:

1. 3-inch HMA Class ½" PG 58H-22
2. 4-inch of 1-1/4" minus crushed rock base course per WSDOT standard spec 9-03.9(3).
3. Subgrade compacted to 95% compacted maximum density as determined by modified Proctor (ASTMD 1557).
4. Street crown 2% sloped to drain system.

Code Authority: RZC 21.10.150; RZC 21.52.030; RZC 21.17.010; RMC 12.12; RZC Appendix 2.A.2.Table 2; RZC Appendix 2A; Redmond Standard Specifications & Details

v. In Phase 3 of the Master Plan, the frontage along Bear Creek Parkway must meet current City Standards which include 12-foot-wide westbound (WB) asphalt travel lane with appropriate tapers, a total of 42-foot-wide eastbound (EB) travel lanes and median, type A-1 concrete curb and gutter, 30-foot-wide sidewalk area with landscape areas included, storm drainage, street lights, street trees, street signs and underground utilities including power and telecommunications. The minimum pavement section for the streets shall consist of:

1. 4-inch HMA Class ½" PG 58H-22
2. 5-inch HMA Class 1" PG 58H-22
3. 4-inch of 1-1/4" minus crushed rock base course per WSDOT standard spec 9-03.9(3).
4. Subgrade compacted to 95% compacted maximum density as determined by modified Proctor (ASTMD 1557).
5. Street crown 2% sloped to drain system.

In Phase 3 of the Master Plan, raised mid-block crossing and ADA ramps are proposed to be installed at Bear Creek Parkway, south of the new building. Pending completion of the City's Safe Speed Study and Audit in 2026 and subsequent evaluation of vehicles speeds and safety improvements on Bear Creek Parkway, an alternative pedestrian enhancement other than the raised mid-block crossing may be considered. With the anticipated significant increase of pedestrian traffic at Bear Creek Parkway due to the Redmond Town Center Master Planned development, the City reserves the right to require additional pedestrian safety measures including, but not limited to, RRFB pedestrian crossings, road channelization revisions, median enhancements for sight distance, and others, at the Bear Creek Parkway frontage. The intersections of Bear Creek Parkway and 164th Avenue NE, and Bear Creek Parkway and 166th Avenue NE, will also be evaluated for pedestrian safety improvements.

Code Authority: RZC 21.10.150; RZC 21.52.030; RZC 21.17.010; RMC 12.12; RZC Appendix 2.A.2.Table 1; RZC Appendix 2A; Redmond Standard Specifications & Details

vi. ADA ramp requirements:

Curb ramps for persons with disabilities are required to all new curb constructions and to all replacement curbs constructed in combination with sidewalks, paths, or other pedestrian access ways. In Phase 3 of the Master Plan, ADA ramps will be installed at Bear Creek Parkway, south of the new 7-story building.

Code Authority: RCW 35.68.075; RZC 21.A.21.a

vii. A 20-scale Channelization Plan is required and should be separate or incorporated into the Transportation Plan, provided the details are clearly visible, for any public street being modified or constructed. The plan shall include the existing and proposed signs, striping and street lighting and signal equipment for all streets adjacent to the site and within at least 150 feet of the site property line (both sides of the street). The plan shall conform to the requirements in the City of Redmond Standard Specifications and Details Manual.

Code Authority: RZC 21.52.030.F, RZC Appendix 2; Redmond Standard Specifications & Details; RCW 47.24.020

viii. Sidewalks constructed to City standards are required at the following locations:

1. In Phase 2 of the Master Plan, 8-foot-wide concrete sidewalks would be installed at the NE 72nd Way and NE 73rd Way frontages. Walkway and landscaping improvements will take place on all four sides of the building.
2. In Phase 2 of the Master Plan, 13-foot-wide pedestrian areas would be installed at the 164th Avenue NE and 166th Avenue NE frontages.
3. In Phase 3 of the Master Plan, 7-foot-wide to 10.5-foot-wide concrete sidewalks would be installed at the NE 72nd Way frontage.
4. In Phase 3 of the Master Plan, 13-foot-wide to 17-foot-wide pedestrian areas with 4-foot-wide planter strips included, would be installed at the 166th Avenue NE frontage.
5. In Phase 3 of the Master Plan, 30-foot-wide sidewalk area with landscape areas included, would be installed at the Bear Creek Parkway frontage.
6. In Phase 3 of the Master Plan, walkway improvements would be installed on the west side of the new 7-story building.

7. In Phase 4 of the Master Plan, walkway improvements would be installed on two sides of the building – the NE 76th Street and 164th Avenue NE frontages.

8. In Phase 5 of the Master Plan, walkway improvements would be installed on two sides of the building – the NE 76th Street and 166th Avenue NE frontages.

9. In Phases 4 and 5 of this Master Plan, new streetscape and pedestrian plaza improvements would be installed at NE 74th Street.

Code Authority: RZC 21.10.150, RZC 21.17.010; RZC 21.52.050; RMC 12.12

d. Access Improvements

i. The type and location of the proposed site accesses are approved as shown on the Redmond Town Center Master Planned Development site plan prepared by GGLO on March 31, 2025.

Code Authority: RZC 21.52.030.E; RZC Appendix 2.D

ii. The following driveways are required to be improved as specified below:

10. In Phase 1 of the Master Plan, the two existing parking structure entries/egresses at the NE 73rd Way and 163rd Place NE frontages, would continue to be used by the new development.

11. In Phase 2 of the Master Plan, for the new 12-story Building 2A, the parking access for this building will be at the 166th Avenue NE frontage. The loading entry and trash pick-up will be at the NE 73rd Way frontage.

12. In Phase 2 of the Master Plan, for the new 12-story Building 2B, the parking access for this building will be at the 164th Avenue NE frontage. The loading entry and trash pick-up will be at the NE 73rd Way frontage.

13. In Phase 3 of the Master Plan, for the new 7-story building, the parking access and loading entry for this building will be at the NE 72nd Way frontage.

14. In Phase 4 of the Master Plan, an existing parking structure entry/egress located south of the new 7-story mixed use Building 4 accessing 164th Avenue NE, will be improved as part of this development.

15. In Phase 5 of the Master Plan, an existing parking structure entry/egress located south of the new 7-story mixed use Building 5 accessing 166th Avenue NE, will be improved as part of this development.

16. In Phases 4 and 5 of the Master Plan, located between the new Buildings 4 and 5 accessing NE 76th Street, an existing parking structure entry/egress will also be improved as part of this development.

Code Authority: RZC Appendix 2.D

e. **Underground Utilities.** All existing aerial power distribution and communication lines shall be converted to underground along the street frontages and within the development. All new utilities serving the development shall be placed underground.

Code Authority: RZC 21.17.020; RZC Appendix 2.A.3 and 11

f. **Street Lighting.** Illumination of the street(s) along the property frontage must be analyzed to determine if it conforms to current City standards. Streetlights may be required to illuminate the property frontage. Luminaire spacing should be designed to meet the specified criteria for the applicable lamp size, luminaire height and roadway width. Contact Isabel Diaz, Transportation Operations at (425) 556-2733 with questions. The street lighting shall be designed using the criteria found in the City's Illumination Design Manual which can be accessed at: http://www.redmond.gov/development/CodesAndRules/StandardizedDetails

With Site Plan Entitlement approval, the applicant shall contact Puget Sound Energy (Street Lighting division) for coordination and development of a Work Sketch plan to include any proposed work on PSE-owned lights and or poles. The final PSE Street Lighting plan is required to be included in the final plan set prior to final approval of the Coordinated Civil Review.

To begin the PSE Lighting coordination process, fill out the Street Lighting information request form here: https://www.pse.com/en/construction-services/pole-services

Code Authority: RZC 21.52.030.F, RZC Appendix 2.A.11

g. **Temporary Pedestrian Access Plan.** The applicant is required to provide a temporary pedestrian access plan for approval by the City prior to any construction on the project site. This plan needs to show how pedestrian traffic passing by the proposed development will be accommodated during the entire length of the construction phase.

A pedestrian access plan should provide pedestrian protection with barriers or covered walkways that parallel existing facilities along the street frontage on the same side of the street on which the development is occurring. These routes must be accessible for persons with disabilities per the current ADA regulations and standards, including the provision of ramps, minimum widths, a detectable edge, and smooth surfaces for wheelchair access. If, under extenuating circumstances, a parallel accessible route cannot be provided along the street frontage adjacent to the

development, pedestrians must be detoured with advance signing in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). This route must be accessible for people with low or no vision. The developer may be required to install temporary crosswalks and street lighting as part of this detour.

In order to keep existing routes open during the construction of new structures adjacent to existing sidewalks, pedestrian protection must be in place and inspected prior to construction adjacent to and at the same grade or above, as detailed in IBC 3306.1 (see table below) to protect pedestrians from falling debris. Pedestrian protection should be designed to provide sturdiness, adequate light for nighttime use and safety, and proper sight distance at intersections and crosswalks. Plans and details for the construction of these covered walkways shall be included as part of the civil construction plan set.

Table 3306.1. PROTECTION OF PEDESTRIANS

HEIGHT OF CONSTRUCTION	DISTANCE FROM CONSTRUCTION TO SIDEWALK, WALKWAY, OR LOT LINE	TYPE OF PROTECTION REQUIRED
8 feet or less	Less than 5 feet	Construction railings
	5 feet or more	None
More than 8 feet	Less than 5 feet	Barrier and covered walkway
	5 feet or more, but not more than one-fourth the height of construction	Barrier and covered walkway
	5 feet or more, but between one-fourth and one-half the height of construction	Barrier
	5 feet or more, but exceeding one-half the height of construction	None

Code Authority: MUTCD 2023 (or latest revision) sections 6D.01, 6D.02, & 6D.05
Condition Applies: Civil Construction

2. Development Engineering – Water and Sewer
   Reviewer: Zheng Lu, Senior Utility Engineer
   Phone: 425-556-2844
   Email: zlu@redmond.gov

   a. **Water Service.** Water service will require a developer extension of the City of Redmond water system as follows:

   - **Phase 1** proposes additions to the existing parking garage located at the northwest corner of NE 73rd Way and 164th Avenue NE.
     A new 4-inch water service line will be installed as proposed by the applicant. The existing 2-inch water service may be abandoned in accordance with Redmond standards. No extension of the public water main is required.
   - **Phase 2** proposes two 12-story buildings immediately south of the existing RTC shopping center where surface parking is currently located.

     Approximately 650 feet of the existing 12-inch water main located on the north side of the two proposed buildings shall be abandoned and relocated to the new access street. Fire hydrants shall be installed at locations approved by the Redmond Fire Department. The fire lines and Fire Department Connection (FDC) lines shall be reconnected serving the existing Redmond Town Center building to the north.

     Construct at least two adequately sized residential and commercial water services and a 6-inch fire line on the west side of the west building and connect to the existing 12-inch water main along 164th Avenue NE.

     Construct at least two adequately sized residential and commercial water services and a 6-inch fire line on the east side of the east building and connect to the existing 12-inch water main along 166th Avenue NE.

   - **Phase 3** proposes the demolition of the existing BJ's Restaurant building at 7211 166th Ave NE and the construction of an 8-story mixed-use residential building at the northwest corner of Bear Creek Parkway and 166th Avenue NE.

     Construct at least two adequately sized residential and commercial water services and a 6-inch fire line on the east side of the east building and connect to the existing 12-inch water main along 166th Avenue NE.

- **Phase 4** proposes partial demolition of the commercial spaces at the northwest corner of the RTC shopping center parking garage and proposes the construction of a 7-story mixed-use residential building at the same location.

  Construct at least two adequately sized residential and commercial water services and a 6-inch fire line on the north side of the building and connect these services to the existing 12-inch water main along NE 76th Street.

- **Phase 5** proposes partial demolition of the commercial spaces at the northeast corner of the RTC shopping center parking garage and construction of a 7-story mixed-use residential building at the same location.

  Construct at least two adequately sized residential and commercial water services and a 6-inch fire line on the north side of the building and connect these services to the existing 12-inch water main along NE 76th Street.

Code Authority: RZC 21.17.010.D

b. **Sewer Service.** Sewer service will require a developer extension of the City of Redmond sewer system as follows:

- **Phase 1** proposes additions to the existing parking garage at the northwest corner of NE 73rd Way and 164th Avenue NE.

  An additional sewer connection charge, as outlined in a City Resolution currently under consideration by the City Council to fund the upgrade of the regional sewer lift station, force main, and downstream sewer upsizing, shall be paid prior to occupancy of the garage building.

- **Phase 2** proposes two 12-story buildings immediately south of the existing RTC shopping center where surface parking is currently located.

  Replace approximately 470 feet of the existing 8-inch sewer main with a 10-inch sewer main along 164th Avenue NE, between Bear Creek Parkway and NE 73rd Way and connect two 8-inch side sewers from the proposed west building to this new sewer main.

  Replace approximately 450 feet of the existing 8-inch sewer main with the 10-inch sewer main along 166th Avenue NE, between Bear Creek Parkway and

NE 73rd Way and connect two 8-inch side sewers from the proposed new east building to this new sewer main.

An additional sewer connection charge, as outlined in a City Resolution currently under consideration by the City Council to fund the upgrade of the regional sewer lift station, force main, and downstream sewer upsizing, shall be paid prior to occupancy of two buildings.

- Phase 3 proposes the demolition of the existing BJ's Restaurant building at 7211 166th Ave NE and the construction of an 8-story mixed-use residential building at the northwest corner of Bear Creek Parkway and 166th Avenue NE.

  Connect two 8-inch side sewers from the proposed new east building to the 10-inch sewer main along 166th Avenue NE, between Bear Creek Parkway and NE 73rd Way, which was installed in Phase 2 construction.

  An additional sewer connection charge, as outlined in a City Resolution currently under consideration by the City Council to fund the upgrade of the regional sewer lift station, force main, and downstream sewer upsizing, shall be paid prior to occupancy of this building.

- Phase 4 proposes partial demolition of the commercial spaces at the northwest corner of the RTC shopping center parking garage and proposes the construction of a 7-story mixed-use residential building at the same location.

  Replace approximately 610 feet of the existing 8-inch sewer main with a 10-inch sewer main along 164th Avenue NE, from NE 73rd Way to north and connect two 8-inch side sewers from the proposed phase 4 building to this new sewer main.

  An additional sewer connection charge, as outlined in a City Resolution currently under consideration by the City Council to fund the upgrade of the regional sewer lift station, force main, and downstream sewer upsizing, shall be paid prior to occupancy of this building.

- Phase 5 proposes partial demolition of the commercial spaces at the northeast corner of the RTC shopping center parking garage and construction of a 7-story mixed-use residential building at the same location with approximately 140 residential units and 14,800 square feet of commercial area.

Replace approximately 600 feet of the existing 8-inch sewer main with a 10-inch sewer main along 166th Avenue NE from NE 73rd Way to north and connect two 8-inch side sewers from the proposed Phase 5 building to this new sewer main.

An additional sewer connection charge, as outlined in a City Resolution currently under consideration by the City Council to fund the upgrade of the regional sewer lift station, force main, and downstream sewer upsizing, shall be paid prior to occupancy of this building.

Code Authority: RZC 21.17.010.D

c. Easements. Easements shall be provided for all water and sewer improvements as required in the Design Requirements for Water and Sewer System Extensions. Easements for the water and sewer mains shall be provided for City of Redmond review at the time of construction drawing review. All easements must be recorded prior to construction drawing approval.

Code Authority: RZC 21.74.020.C, RZC Appendix 3.VII

d. Sewer System Study. The City of Redmond is currently working on a rezone of the Leary Way sewer basin to support higher-density, mixed-use development. As part of this effort, the Public Works Department has retained a consultant engineering firm to evaluate the capacity and performance of the existing sanitary sewer system and to identify recommended improvements to the City's collection and conveyance infrastructure, including the upsizing of the regional sewer lift station. The study includes planning-level cost estimates and has informed the development of a capital improvement project (CIP). It also establishes additional sewer connection charges for future developments to recover infrastructure costs. The study focuses on the downstream areas of Leary Way, Bear Creek Parkway, and the associated lift station. The City will be responsible for constructing the regional improvements, with associated costs recouped through additional connection charges. As part of this coordinated effort, the Redmond Town Center developer is responsible for replacing and upsizing the sewer mains along 164th Avenue NE and 166th Avenue NE per Sewer General Plan and will be required to pay the additional connection charge as outlined in the sewer system study. The additional sewer connection charge shall be as established in the City Council resolution as described in Paragraph 'b' above.

Code Authority: RZC Appendix 3, Growth Management Act, King Count Comprehensive Plan, WAC 173-240

e. **Permit Applications.** Water meter and side sewer applications shall be submitted for approval to the Development Engineering Division. Permits and meters will not be issued until all improvements are constructed and administrative requirements are approved. In certain limited circumstances, at the sole determination of the City of Redmond, water meter and/or side sewer permits may be issued prior to completion of improvements and/or administrative requirements. In such cases, various additional guarantees or requirements may be imposed as determined by the Development Engineering Division. All reimbursement fees shall be paid prior to issuance of water and side sewer permits if applicable.

Code Authority: RMC 13.08.010; RMC 13.12.120

3. Development Engineering – Stormwater/Clearing and Grading
Reviewer: Jody Conyers, Stormwater Engineer
Phone: 425-556-2468
Email: jconyers@redmond.gov

a. Water Quantity Control.

i. Project lies within the Downtown Regional Stormwater Facility Basin. Stormwater quantity control will be provided by the City of Redmond upon payment of the Downtown Capital Facility Charge. Phase 2 will remove existing 36-inch pipe and upgrade to a new 48-inch pipe in the access road north of phase 2 buildings. All current buildings connecting to the old 36-inch pipe will be connected to the new 48-inch pipe. Phase 2 will directly discharge to the water quality ponds and then directly discharge to the Sammamish River. Phases 1,3,4 and 5 will tie into the upgraded 48-inch pipe and continue on through the water quality ponds and then directly discharge to the Sammamish River.

ii. Provide for overflow routes through the site for the 100-year storm.

Code Authority: RMC 15.24.080.I

b. Water Quality Control.

i. Basic water quality treatment shall be provided in a privately maintained existing water quality pond. Treatment is required for the 6-month, 24-hour return period storm.

ii. The project intends to address any additional Enhanced water quality needs using proprietary stormwater treatment facilities that are approved by City code.

Code Authority: RMC 15.24.080.H

c. **Public Stormwater Easements.** Public easements will be required for any public stormwater conveyance systems on private property. Easements shall be provided for City of Redmond review at the time of construction drawing approval. The existing and proposed easements shall be shown on the civil plans. Prior to acceptance of the easement(s) by the City, the developer will be required to remove or subordinate any existing private easements or rights to encumber the property to be dedicated. Prior to construction drawing approval, fully executed and recorded offsite easements shall be provided to the Development Engineering Division. Additionally, prior to construction drawing approval, fully executed and recorded offsite or onsite easements shall be provided to the Development Engineering Division.

Code Authority: RZC 21.74.020.C

d. **Private Stormwater Easements.** Private stormwater easements will be required where drainage systems are located across adjacent properties and will remain under private ownership. Maintenance of private drainage systems will be the responsibility of the property owners benefiting from the easement. Prior to construction drawing approval, fully executed and recorded easements shall be provided to the Development Engineering Division. Additionally, prior to construction drawing approval, fully executed and recorded offsite or onsite easements shall be provided to the Development Engineering Division.

Code Authority: RZC 21.74.020.C

e. **Clearing and Grading.** No site-specific requirements.

Code Authority: RZC 21.74.020.J, RMC 15.24.050, RMC 15.24.080, RMC 15.24.082

f. **Temporary Erosion and Sediment Control (TESC).** Rainy season work permitted October 1st through April 30th with a Wet Weather Plan (WWP) incorporated into the CCR plan set. The WWP will be used to apply for a separate WWP permit (as needed) after the Civil SITE Construction permit issuance, and additional WWP permit fees may apply based on the fee schedule at that time.

Code Authority: RMC 15.24.080

g. **Department of Ecology Notice of Intent Construction Stormwater General Permit.** Notice of Intent (NOI) must be submitted to the Department of Ecology (DOE) at least 60 days prior to construction on a site that disturbs an area of one acre or larger. Additional information is available at: https://ecology.wa.gov/Regulations-

Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit

Code Authority: Department of Ecology Rule

h. **Regional Capital Facilities Charge:** A Regional Capital Facilities Charge applies to this project, located in the Downtown Sub-basin. Please see the Development Engineering Fee Schedule for current fee information.

Code Authority: RMC 13.20.045 (Downtown), RMC 13.20.040 (Citywide)

4. Natural Resources

Reviewer: Jessica Atlakson, Environmental Scientist
Phone: 425-556-2874
Email: jatlakson@redmond.gov

a. **Permanent Dewatering.** Permanent dewatering, including the use of subfloor drains, is prohibited for this site because it is located within the Critical Aquifer Recharge Area.

Code Authority: RMC 13.07.085

b. **Temporary Construction Dewatering**. If temporary construction dewatering is necessary, all documentation must be submitted in accordance with RMC 13.25 and the City's Temporary Construction Dewatering Operating Policy during the review process, including a Temporary Construction Dewatering Feasibility Study and Temporary Construction Dewatering Plan. Civil plan profiles shall depict the seasonal high groundwater level elevation on profiles for all underground elements, including crane footing, foundations, elevator pits, utilities, and stormwater infiltration facilities.

Temporary Construction Dewatering Operating Policy: https://www.redmond.gov/DocumentCenter/View/8140/Temporary-ConstructionDewatering-Operating-Policy-PDF

Code Authority: RMC 13.25

c. **Underground Elevator Cylinders**. Elevators shall meet wellhead and groundwater protection performance standards, including encasement of any underground hydraulic elevator cylinders and using vegetable oil for hydraulic fluid.

Code Authority: RMC 15.24.095

d. Wellhead and Groundwater Protection. Wellhead and groundwater performance standards shall be met as per RMC 15.24.095, including providing the City with all well monitoring and decommissioning reports. A description of meeting these standards shall be provided in the Stormwater Pollution Prevention Plan.

Code Authority: RMC 15.24.095

e. Discovery of Soil Contaminants during Construction. Report any contaminants to the City during project construction and remediate in accordance Washington State reporting and cleanup processes of the Model Toxics Control Act, WAC 173-340.

Code Authority: RMC 15.24.095

5. Fire Department
Reviewer: Scott Turner, Assistant Fire Marshal
Phone: 425-556-2273
Email: sturner@redmond.gov

The current submittal is generally adequate for LAND-2023-00296 Approval but does not fully represent compliance with all requirements. The following conditions are integral to the approval and shall be complied with in Civil Drawings, Building Permit Submittals, Fire Code Permit submittal, and/or other applicable processes:

a. Site Plan Condition

1. Required fire access shall meet all requirements of Redmond Fire Department Standard (RFDS) 2.0: Access and Addressing.
2. Addresses for all structures and suites within will be assigned during the civil review process and shall conform to Redmond Fire Department Addressing Standards.
3. Emergency Medical Services (EMS) access per RMC 15.06 is to be provided to all buildings. The required striping and signage for this location shall be determined in the civil review process.
4. Fire service access and appurtenances shall not be obstructed from deliveries, trash, storage, or other building functions.
5. Required fire access roadways not in the public way are required to be recorded in an Emergency Vehicle Access Easement (EVAE).
6. Required fire access roadways shall be able to support the weight of fire department vehicles: 77,000 pounds and a point load of 45,000 pounds over a 24”x24” pad, or as determined by the City of Redmond Engineer. The access roadways shall be in place when the building exceeds one story above grade.

7. Striping and signage are required for all fire access roadways and will be determined in the civil review process.

b. Fire Protection Plan

1. The building shall be fully sprinklered as per the IFC, NFPA 13 and RFDS 5.0.
2. All areas shall have compliant Class I standpipe coverage, as per IFC, NFPA 14 and RFDS 4.0. Temporary standpipe coverage is required per IFC and RFDS 4.0.
3. All areas shall have an IFC, NFPA 72, and RFDS 9.0 compliant fire detection and alarm system.
4. Fire hydrants shall be located to meet required commercial hydrant spacing and to meet fire flow requirements in the International Fire Code and RMC 15.06. Exact locations will be determined in the civil review process.
5. Hydrants must be in place and serviceable prior to the delivery, use, or storage of combustible building materials on-site or when Type 1A construction is complete.
6. Primary and secondary fire department connections are required and shall meet the requirements of RFDS 5.0
7. During construction, fire mitigation for adjacent buildings may be required per the International Building Code (IBC) and the International Fire Code (IFC) as amended by RMC 15.06.013 A. (59). Proposed plans for fire mitigation shall be submitted with the building permit submittal documents.
8. The water supply capacity shall be capable of providing 3,500 gallons per minute (gpm) to the site and meet all requirements of the City of Redmond Engineer.
9. Per Appendix B (Fire Flow) of the IFC as amended by RMC 15.06, a building separation may be required to limit the fire flow of any one portion of the building to 3,500 gpm. Initial fire flow calculations based on the proposed building square footage and building construction type have been calculated in the SPE process and shall be updated in the civil review and building permit review.
10. See the Fire Code Permit section for other Fire Protection requirements.

c. Change or Modification

1. Determination of adequate fire flow as per RFDS 3.0: Fire Flow has been approximated in the SPE. Any changes in the size and building type of the structure at the time of building permit submittal could result in building changes including the addition of fire walls.
2. If an underground tank is discovered on site, a separate fire permit for removal is required.
3. Required fire access roadways, or "Fire Lanes", may be established at the time of plan review, pre-construction site inspection, and/or post construction site inspection. Additional fire lanes, marking, or re-marking

may be required anytime during the life of the development upon evaluation by and direction of the Fire Marshal.

d. Fire Code Permits

As part of the fire protection plan for this building, all IFC construction permits as described in the IFC Chapter 105.7 as amended by RMC 15.06.013 A.(17) are required. This may include but is not limited to the following permits:

1. Fire Alarm and detection systems and related equipment for an NFPA 72 compliant fire alarm.
2. Fire Sprinkler systems and related equipment for an NFPA 13 compliant fire sprinkler system(s).
3. Standpipe systems for an NFPA 14 compliant standpipe system(s).
4. Fire Pumps and related equipment
5. Emergency Responder Radio
6. Flammable Combustible Liquids
7. Gates and Barricades across fire apparatus access roads
8. Places of Assembly
9. Fixed Fire Suppression systems
10. Solar Photovoltaic systems
11. Smoke Control or exhaust systems
12. Smoke control shall be installed as specified in the IBC and IFC. Depending on the smoke control requirements and design, outside technical review and inspections may be required at the applicant's expense.
12. Demolition of existing structures shall require a permit.
13. Removal of existing underground storage tanks requires a permit.

Code Authority: RMC 15.06; RZC Appendix 2, Redmond Fire Department Standards and Redmond Standard Specifications and Details

6. Planning Department

Reviewer: Alex Hunt, Senior Planner
Phone: 425-556-2475
Email: ahunt@redmond.gov

a. Development Agreement. Development shall be subject to the terms of the executed Development Agreement (LAND-2023-00297). Amendments to the proposed development shall be processed as established in Section 4.5 of the executed Development Agreement.

Code Authority: RZC 21.76

b. **Tree Preservation Plan.** A Tree Health Assessment and Tree Preservation Plan depicting all significant and landmark trees required to be preserved as part of the site development must be provided with the Site Plan Entitlement for each phase.

Code Authority: RZC 21.72.060.D

c. **Exceptional Amenities for Additional Height.** As part of the Exceptional Amenities for Additional Height (EAAH) program, the priority techniques chosen for the development shall be applied across the project limits as required by RZC 21.10.050.C for the development of buildings up to 12 stories tall.

Code Authority: RZC 21.10.050.C

d. **Affordable Housing.** Proposed affordable housing units shall comply with the implementation provisions of RZC 21.20.040, and each phase that includes residential units designated as affordable shall be required to record an Affordable Housing Agreement pursuant to RZC 21.20.080.

Code Authority: RZC 21.20

e. **Noise Report.** A noise report prepared by a qualified acoustical consultant must be submitted and approved prior to civil drawing approval. The noise report shall comply with RMC 6.36 and provide sound attenuation measures.

Code Authority: RMC 6.36.060

f. **Private Open Space.** For each phase containing residential dwelling units, the applicant shall demonstrate compliance with the private usable open space requirements of RZC 21.10.130E.

Code Authority: RZC 21.10.130
Condition Applies: Site Plan Entitlement

g. **Bonds.** Bonds for Landscaping, Tree Preservation, Tree Replacement and Mitigation shall be provided no less than 5 days prior to request for civil construction drawing(s) signatures. Drafts of the Bond Agreements, Bond quantity Worksheets and Bond Calculation Worksheets shall be submitted

at time of Civil Construction Application. If not provided at time of CCR submittal, entire submittal will be rejected for intake.

Code Authority: RZC 21.767.090.F
Condition Applies: Civil Construction Permit

h. Publicly Accessible Open Space. Prior to the issuance of a certificate of occupancy for each phase, a public access easement for any publicly accessible open space and pedestrian network in that phase must be recorded with the King County Recorder's Office. The public access easement(s) shall be in a form approved by the City to ensure that the open space and pedestrian network will remain accessible to the public for the life of the development. This shall be a covenant running with the land, binding on the assigns, heirs, and successors of the applicant.

Code Authority: RZC 21.76.020.D.5.b.

i. Archeological and Historical Preservation: A professional archaeological monitor shall be present to monitor all ground disturbing activities, and an archaeological Monitoring and Inadvertent Discovery Plan (MIDP) shall be prepared and submitted to DAHP and the interested Tribes for review prior to ground disturbance.

Code Authority: RZC 21.30.070.D
Condition Applies: Civil Construction & Building Permit

j. Construction Parking Requirements and Contact Information. A sign shall be posted on-site visible to the public throughout the duration of all construction activity per the Construction Contact Sign Handout. Construction activities consist of all site work including, but not limited to grading, landscaping, infrastructure and building permit related construction. Applicant and contractor shall work with city planner prior to mylar signing to determine location(s) of sign(s). Contact information shall remain up-to-date and visible at all times. The assigned city planner shall be notified within two business days when contact person has been changed and a picture of the updated sign shall be e-mailed. Construction Parking requirements for the project shall be denoted on the bottom portion of the sign per handout instructions.

Code Authority: RZC 21.76.070.B.3.a.ii.A; Comprehensive Plan TR-19

k. **Agency Permits.** The applicant shall be responsible for identifying and obtaining all required permits from other agencies, including local, regional, state and federal permits.

Code Authority: RZC 21.76.070.B
Condition Applies: As determined by the permitting agency

7. Potholing

Reviewer: Jody Conyers, Senior Engineer and Zheng Lu, Utility Senior Engineer
Phone: 425-556-2468 and 425-556-2844
Email: jconyers@redmond.gov and zlu@redmond.gov

All existing utilities at the location of the proposed water/sewer mains, storm and service line crossings shall be potholed prior to submittal of first Civil Plan Review.

Potholing in the City Right-of Way requires a permit, approved traffic control plans, and a performance bond before commencing work. The developer shall include in the Right-of-Way permit, a list of potholing numbers along with the potholing information for each number, such as utility name, type of facility and the reason for potholing.

The developer shall do the following during and after potholing:

1. Follow City of Redmond Detail 203 for pothole restoration.
2. Protect existing traffic loops.
3. Survey all potholing locations.

Based on the final survey, a modified design of sewer, water and storm facilities may be necessary to avoid conflict with existing utilities.

All potholing information shall be included in the plans and profiles of water, sewer and storm design in first submittal of CCR review. The developer shall add clearance information on the water/sewer/storm profiles at all crossings of existing and proposed utilities. Minimum clearance of one foot is required between the sewer/water mains and other utilities including storm sewer.

Code Authority: Water and Wastewater System Extensions Design Requirements Section IV. 3. M and Section V. 3. K; Stormwater Technical Notebook, Issue No. 8, Amended June 5, 2019; Stormwater Technical Notebook, Issue No. 9, Effective July 1, 2022

B. Compliance with City of Redmond Codes and Standards

This approval is subject to all applicable City of Redmond codes and standards, including the following:

Transportation and Engineering

RZC 21.10.150	Downtown Pedestrian System
RMC 6.36	Noise Standards
RZC 21.52	Transportation Standards
RZC 21.40.010.E	Design Requirements for Parking Facilities
RZC 21.54	Utility Standards
RMC 12.08	Street Repairs, Improvements & Alterations
RMC 12.12	Required Improvements for Buildings and Development
RMC 12.16	Highway Access Management
RZC 21.76.100.F.9.C	Nonconforming Landscaping and Pedestrian System Area
RZC 21.76.020.G	Site Construction Drawing Review
RZC 21.76.020.G.3	Preconstruction Conference
RZC 21.76.090.F	Performance Assurance
RZC Appendix 2	Construction Specification and Design Standards for Streets and Access
City of Redmond	Record Drawing Requirements, November 2024
City of Redmond	Standard Specifications and Details (current edition at the time of this approval letter issued)

Water and Sewer

RMC 13.04	Sewage and Drainage
RMC 13.08	Installing and Connecting Water Service
RMC 13.10	Cross-Connection and Backflow Prevention
RZC 21.17.010	Adequate Public Facilities and Services Required
RZC Appendix 3	Design Requirements for Water and Wastewater System Extensions
City of Redmond	Standard Specifications and Details (current edition at the time of this approval letter issued)
City of Redmond	Design Requirements: Water and Wastewater System Extensions – April 2019.

Stormwater/Clearing and Grading

RMC 13.25	Temporary Construction Dewatering
RMC 15.24	Clearing, Grading, and Storm Water Management
RZC 21.32.080	Types of Planting
RZC 21.64	Critical Areas
RZC 21.64.040	Frequently Flooded Areas
RZC 21.64.050	Critical Aquifer Recharge Areas
RZC 21.64.060	Geologically Hazardous Areas
City of Redmond	Standard Specifications and Details (current edition at the time of this approval letter issued)
City of Redmond	Stormwater Technical Notebook, Issue No. 9, Effective July 1, 2022
Department of Ecology	Stormwater Management Manual for Western Washington (July 2019)

Fire

RMC 15.06	Fire Code
RZC Appendix 2	Construction Specification and Design Standards for Streets and Access
City of Redmond	Fire Department Design and Construction Guide
City of Redmond	Fire Department Standards

Planning

RZC 21.10:	Downtown
RZC 21.58, 60, 62	Design Standards
RMC 3.10	Impact Fees
RZC 21.32	Landscaping and Tree Protection
RZC 21.34	Exterior Lighting Standards
RMC 6.36	Noise Standards
RZC 21.38	Outdoor Storage and Service Areas
RZC 21.40	Parking Standards
RZC 21.64	Critical Areas
RZC 21.44	Signs
RZC 21.50	Transition Area Overlay Areas
RZC Appendix 1	Critical Areas Reporting Requirements

Building

RMC 15.08	Building Code
RMC 15.12	Electrical Code
RMC 15.14	Mechanical Code
RMC 15.16	Plumbing Code

RMC 15.18	Energy Code
RMC 15.20	Ventilation and Indoor Air Quality Code

Development Agreement LAND-2023-00297

REDMOND TOWN CENTER DEVELOPMENT AGREEMENT

This DEVELOPMENT AGREEMENT ("Agreement") is entered into this ____ day of _____, 2025 ("Effective Date"), by and between the City of Redmond ("City"), a Washington municipal corporation, and Fairbourne Properties, LLC ("Owner"), a Delaware limited liability company. The City and Owner are referred to collectively as the "Parties" and individually as a "Party."

RECITALS

A. Owner is planning the development of land located at 7525 166th Avenue NE in Redmond, Washington and legally described on the attached Exhibit A (the "Property"). The Property consists of four parcels: Parcel 7202410030, Parcel 7202410010, Parcel 7202410050, and Parcel 7202410020. The Property is located in the Redmond Town Center in the City's Town Center ("TWNC") zone.

B. As allowed by Redmond Zoning Code ("RZC") 21.76.070.P.2.a, Owner has prepared a master plan entitled "Redmond Town Center Master Planned Development" dated _____ ("Master Plan") to provide for coordinated development of the Property. Owner has applied for review under the State Environmental Policy Act, and approval of the Master Plan and this Development Agreement under City File Nos. SEPA-2023-00298, LAND-2023-00296, and LAND-2023-00297 respectively. The Master Plan has been the subject of a public review process that included public review and comment at a neighborhood meeting and recommendations for approval by the City's Design Review Board and Technical Committee. The Redmond City Council also conducted a public hearing to obtain further public comment on the Master Plan and this Agreement.

C. The existing site development includes: six two-story commercial retail buildings: Buildings 3A, 3D, 3B, 3C, 4E, and 4F; two parking garages: I Garage, and G Garage; a single-story restaurant --Building 4B; and a surface parking lot labeled 4IC.

D. The development plan includes site improvements, a two-story addition to an existing parking garage (I Garage), four mixed-use residential buildings (Buildings 4IC-East, 4B, 3A and 3D) and two scenarios for the Building 4IC-West—either a mixed-use residential building or a mixed-use office building ("the Project"). The Project will be developed across multiple, distinct phases during the duration of the Agreement.

E. Environmental impacts of the development proposed by the Master Plan and Site Plan Entitlements were identified and considered through the State Environmental Policy Act ("SEPA") Checklist prepared on November 6, 2023 and Determination of Nonsignificance issued by the Technical Committee on December 6, 2024.

F. Completion of the Project in accordance with this Agreement will promote the goals and policies of the Redmond Comprehensive Plan, including but not limited to, allowing residents and visitors greater access to major employment and transit hubs, emphasizing regional

retail as part of mixed-use developments, and providing a mix of retail and commercial opportunities that meet a range of needs from daily goods and services to niche and boutique retailers, to restaurants and entertainment. The Comprehensive Plan goals furthered by the Project include, but are not limited to: FW-GR-1, FW-CTR-1 , FW-DT-1. LU-7, LU-8, HO-10, HO-13, DT-3, DT-4, DT-5, DT-11, DT-12, and DT-14.

G. RCW 36.70B.170 through 36.70B.210 authorize cities to enter into development agreements with property owners to govern the future development of real property. A development agreement between Owner and the City is a collaboration that will provide mutual benefit for the Parties and the residents and businesses of downtown Redmond.

H. By executing this Agreement, the Parties intend to set forth their mutual agreements and understandings as they relate to the development of the Property and the Project.

AGREEMENT

PURSUANT TO RCW 36.70B.170 through 36.70B.210 and in consideration of, and subject to, the mutual promises, benefits, and obligations set forth herein, the City and Owner enter into the following Development Agreement and agree to be bound by its terms.

1. Land and FAR. The Property governed by this Agreement, exclusive of public right-of-way, consists of approximately 841,913 square feet of land located at 7525 166th Avenue NE, 7345 164th Avenue NE, 7530 164th Avenue NE in Redmond, Washington and legally described on the attached Exhibit A (the "Property"). The Property governed by this Agreement is depicted on Exhibit B to this Agreement. Future dedications of land for right-of-way or other public use or improvements and future acquisitions of right-of-way the City or other public agencies through condemnation or otherwise shall not reduce the land area used for calculating compliance with applicable land use regulations, the development rights provided for in this Agreement, or development rights provided through applicable land use regulations.

2. The Project. The Project is anticipated to be developed in phases. Phase 1 is located on Parcel 7202410020 and will consist of a 2-story addition to an existing parking garage. The current Phase 2 includes two subphases—Phases 2A and 2B. Phase 2A (Building 4IC-East Building) will consist of a 12-story residential building and Phase 2B (Building 4IC-West Building) is expected to include either a 12-story mixed-use residential building or a 12-story office building. The three remaining phases will consist of 7-story mixed-use residential buildings as outlined on page 25 of the Master Plan (Exhibit C) and are identified as Buildings 4B, 3A, and 3D. The Project also proposes limited demolition of up to three buildings to occur in multiple phases as outlined in the Master Plan. To achieve additional building height above the base building height outlined in Table RZC 21.10.050B, the Project will provide Extraordinary Amenities for Additional Height ("EAAH") in accordance with RZC 21.10.050.D. A proposed path for compliance is outlined in the Master Plan (Exhibit C). The Project will also include a publicly accessible linear plaza, enhanced pedestrian crossings connecting NE 74th St with Bear Creek Parkway, plaza and pedestrian improvements to 74th Street, additional bike infrastructure and traffic calming at 164th and 166th Streets, preserve additional trees beyond what is required by Code, and green roofs on non-mechanical or amenity areas of the new buildings (except for the two-story addition to the existing parking garage which does not need to comply with EAAH).

Notably, the Project was also able to eliminate all below grade parking on the Project to avoid negative impacts to the ground water aquifer associated with dewatering.

3. Conformance with Master Plan. The Redmond City Council approved the Master Plan on _____, 2025. Approval of the development shown in the Master Plan and identified in this Agreement is specifically conditioned upon provision of the public amenities and other features identified in the Master Plan and/or this Agreement. The Project shall substantially conform to the Master Plan, including amendments thereto as provided for in RZC 21.76.090(D). In the event of a conflict between the Master Plan and this Agreement, this Agreement shall control.

4. Vested Rights.

4.1 Development Regulations. Development of the Project shall be vested to and governed by City development regulations in effect as of June 27, 2025, pursuant to the provisions of RZC 21.10.150.B as it exists on the Effective Date of this Agreement. Except as expressly stated otherwise herein, any amendments to or additions made during the term of this Agreement to City development regulations shall not apply to or affect the conditions of development of the Project. As used in this Agreement, "development regulations" shall be deemed to include regulations, policies, and guidelines addressing zoning, environmental review (including SEPA procedures and substantive SEPA policies), building and site design, utilities, stormwater, transportation concurrency and other laws, ordinance, policies, and administrative regulations and guidelines of the City governing land development.

4.2 Exemptions. The following are exempt from vesting under this Agreement:

4.2.1 Plan review fees, inspection fees, and transportation, school, and fire impact fees established by schedules, charts, tables, or formulae;

4.2.2 Water, sewer, stormwater, stormwater capital facility charges and other utility connection charges, stormwater monthly billing, general facility charges, Cascade Water Alliance charges, Metro charges, and monthly service charges;

4.2.3 Amendments to building, plumbing, mechanical, fire, and other construction codes adopted pursuant to RCW 19.27 and 19.27A; and

4.2.4 Other City enactments that are adopted pursuant to state or federal mandates (such as, but not limited to, the City's NPDES Municipal Stormwater Permit) that preempt the City's authority to vest regulations.

4.3 City's Reserved Rights. Notwithstanding any other provisions of this Agreement, pursuant to RCW 36.70B.170(4) the City reserves authority to impose new or different officially adopted regulations of general applicability to the extent required by a serious threat to

public health and safety, as determined by the Redmond City Council after written notice and an opportunity to be heard has been provided to Owner.

4.4 Amendments to Agreement and Master Plan. This Agreement and the Master Plan may be amended administratively if the request does not increase the overall project density as described below in this section and does not include a use not approved by this Agreement. When reviewing this administrative modification, due to the conceptual nature of a phased Master Plan, the total amount of square footage or number of dwelling units approved under the Master Plan is that density which was analyzed in the Traffic Impact Analysis (Exhibit E). The location of vehicular and pedestrian access points may be amended through the site plan entitlement deviation procedure, as outlined in the Master Plan and Section 6.1 below. Any amendment not meeting the criteria in this subsection must be approved by the Redmond City Council using the process for consideration of development agreements set forth in the RZC. Changes to the proposed compliance method for providing EAAH in accordance with RZC 21.10.050.D shall not be deemed an Amendment to this Agreement.

5. Term. The term of this Agreement shall be ten (10) years, except as provided in this Section. The Redmond Zoning Code currently limits the term of a master plan approval in Downtown to ten (10) years, with the potential for a five (5) year extension. The City and Owner intend for this Agreement to be in effect for a term concurrent with the Master Plan and intend that any request for extension of the Master Plan will be processed concurrently with an extension of this Agreement, and that any expiration of the Master Plan shall cause this Agreement to expire. The City and Owner agree that if the Master Plan is extended, the term of this Agreement shall likewise be extended for the term of the Master Plan.

6. Development Approvals.

6.1 Flexibility. Detailed plans for development of the Property shall be as approved through the site plan entitlement process, the coordinated civil review process and other approval processes set forth in the RZC, as applicable. The Master Plan is intended to be an overall approved development umbrella, with certain right-of-way improvements, public infrastructure, and public benefits to be delivered in certain phases. As noted in Section 2 of this Agreement, the Master Plan includes two scenarios for development of Building 4IC-West—Site Planning Concept One consists of mixed used multifamily building; Site Planning Concept Two consists of an office building. The Master Plan is not intended to require a specific order to the phased development; square footages, building shapes, or building footprints on specific parcels; or require or preclude access points to/from parcels if deviations to access are sought during the Site Plan Entitlement process. Such graphics and text in the Master Plan shall not constrain the process of designing and approving individual developments, which shall address applicable city-wide and Downtown design guidelines, codes, and standards.

6.2 Conditions. The City shall not impose any condition on the Project, or on any development proposal within the Project, that is inconsistent with the Master Plan, except as authorized in this Agreement or otherwise authorized by applicable City codes or state or federal regulations, including but not limited to those codes and regulations set forth in Section 4.2 against which Owner is not vested, or under those circumstances set forth in Section 4.3.

6.3 Development Site/Land Division. The size, configuration and number of legal lots or development parcels within the Property may be modified if approved by the City without amendment of the Master Plan through boundary line adjustments, lot consolidations, binding site plans, short plats, subdivisions or the creation of condominiums. Any future land division or consolidation shall not impact the ultimate size of open spaces, infrastructure, or other required public plazas and amenity spaces or public benefits or improvements, unless permitted as an administrative amendment to this Agreement and unless the City obtains like public amenity space, public benefits, or infrastructure.

7. Phasing of Development.

7.1 Description of Phases. Owner will develop the Property in up to five phases that are described in the Master Plan (Exhibit C) at pages 72-76. Amendment of the phasing plan, including the order of commencement for each phase, may be administratively approved by agreement of Owner and the City staff as long as all infrastructure, public amenity space, and public benefits associated with each respective phase are consistent with the public benefits table included in the Master Plan, and each phase provides for adequate mitigation of the impacts associated with the development proposed in that phase.

7.2 Street and Right-of-Way Improvements. Owner will construct the street improvements in phases as shown in the Master Plan and required by the Master Plan conditions of approval in order to mitigate the transportation impacts associated with the Project. The improvements and associated right-of-way are generally shown on pages 60-65, 84 and 91 of the Master Plan (Exhibit C). Changes to the Project that result in administrative amendments to this Agreement under Section 4.5 will not require additional street and/or right of way improvements beyond those described in the Master Plan and this Agreement, so long as the change to the Project generates the same or fewer vehicle trips and/or generally maintains the same trip distribution to the surrounding roadway network as the Project prior to the amendment, based on the methodology of the Transportation Impact Analysis accompanying the Master Plan. Easements and dedications shall be provided for the City of Redmond's review at the time of construction drawing approval and finalized for recording prior to the issuance of a civil site permit. The construction of any street frontage improvement, and the dedication of each completed street frontage improvement and associated right-of-way shall be completed prior to the issuance of a civil site permit in the phase for which the improvement is required, whichever is sooner. Should Owner desire to construct improvements designated for future phases at an earlier time, such work shall be subject to City approval and shall be coordinated with the City. The improvements shall be designed and constructed in accordance with the Master Plan and shall comply with City of Redmond standards and code requirements.

7.3 Utilities. Any required water mains, sewer mains, and storm drainage facilities will be installed in public right-of-way or in easements acceptable to the City. Any necessary right-of-way and easements shall be dedicated or conveyed to the City. Construction of such improvements shall be in accordance with City standards, including but not limited to, the City's standard construction details and the City of Redmond Stormwater Manual. Owner will construct improvements as shown in the Master Plan in phases according to the phasing schedule

approved as part of that Plan. No additional utility improvements will be required to be constructed by Owner, except as outlined in Section 7.4 and as may be necessary to meet state or federal mandates against which Owner is not vested under Section 4.2 and except as may be required by the City under circumstances described in Section 4.3. Changes to the Project that result in administrative amendment to this Agreement will not result in additional utility requirements beyond those described in the Master Plan and its conditions of approval, provided that there is no increase in stormwater runoff as the result of the amendment and provided that the utility demands of the amendment do not exceed the capacity of the proposed Master Plan utilities or the City utility system used by the Project. Deviations from the Master Plan that provide materially equivalent utility service and that comply with City standards may be proposed by the Owner and approved administratively by the City staff without amendment of the Master Plan or this Agreement.

7.4 Additional Sewer Connection Charge. The Owner acknowledges that sewer infrastructure improvements are needed to support additional zoning density in the Redmond Town Center zone. Owner agrees to pay any applicable additional connection charge that is assessed by the City through Council-approved resolution based on a pro-rata share of flows proposed by the development or existing facilities, or other equitable means of assessment. If no additional connection charge is assessed through an approved resolution, Owner acknowledges that no additional development can occur unless and until the sewer system is upgraded as required to support the increased flows only from the proposed development. Both Owner and City acknowledge that (i) interim upgrades to the sewer system, including piecemeal upgrades to the lift station, that do not create the necessary capacity for the full Basin are not the preferred method of creating additional capacity, and, (ii) in the event the City does not pass a resolution based pro-rata share sewer additional connection charge to cover the cost of basin-wide improvements, the financial burden to upgrade the entire basin system may be unfeasible for Owner to support entirely, even with a Reimbursement Agreement in place. Therefore, in the event the City does not pass a resolution based pro-rata share sewer additional connection charge to cover the cost of basin-wide improvements, Owner and City agree to work in good faith to determine if interim improvements that support this development are available, provided said interim improvements are deemed reasonable and proportionate.

8. Transportation Impact Fees and Credits.

8.1 Generally. Except as otherwise provided in this Agreement, Owner shall pay transportation impact fees for the Project in effect at the time building permits are issued for each building.

8.2 Calculation of Transportation Impact Fees. The City's method and procedure for calculating net new project demand for mobility units for purposes of transportation impact fees shall account for structures currently existing on the Property ("Existing Structure"). There are three Existing Structures on the Property that are anticipated to be replaced with a new structure. The City agrees that, for purposes of evaluating Transportation Impact Fees, Owner will receive credit for 8,738 s.f. of shopping center use in Building 4B, 47,799 s.f. of shopping center use space in Building 3A, and 41,287 s.f. shopping center use for the Building 3D, as detailed in the Traffic Impact Analysis dated March 28, 2025 (Exhibit E). Upon demolition of any Existing

Structure, credit for reduction of existing demand for mobility units attributable to such Existing Structure shall automatically accrue to the owner of the Existing Structure. The credit may be used in whole or part by such owner to reduce the demand for mobility units attributable to such owner's development within the Master Plan Property or may be assigned to another owner or developer of property within the Master Plan Property. Credits may only be used in the calculation of net new mobility unit demand for development within the Master Plan Property and may not be used in connection with any development located outside of the Master Plan Property. Consistent with the Redmond Municipal Code (RMC) 3.10.120, at the time of building permit issuance, the Owner may choose to use the City's standard traffic impact fee rates outlined in the schedules in RMC 3.10.100 for the year of the building permit issuance, or have an independent study conducted to develop unique transportation impact fee rates. All independent fee calculation studies shall meet the standards outlined in RMC 3.10.120 and shall be submitted to the City for review and approval.

8.3 Credits against Transportation Impact Fees. Per the City of Redmond Municipal Code Chapter 3.10, Section 3.10.130.A, whenever a development approval is conditioned upon a developer's conveyance of land for and/or construction of specified system improvements, the developer shall be entitled to a credit against the impact fee that would be imposed for the value of the land or property interest conveyed and/or the actual cost of construction. The total amount of credit granted shall not exceed the total amount of the impact fee the Owner is required to pay upon completion of the Project. If the amount of credits in a particular phase exceeds the amount of the impact fee required for that phase, Owner may apply the remaining credit against impact fees required for future phases of development in the Project.

In consideration of Owner constructing the transportation improvements as set forth in this agreement and shown in the Master Plan, the city shall credit against all Redmond transportation impact fees due to the City the total project cost (including land value, design, permit fees, construction costs, and right-of-way dedications) of improvements made and listed in the Redmond Transportation Facilities Plan (TFP) or subsequently added to the plan or its successor. If not already part of the TFP, City staff shall propose for City Council decision the inclusion in the TFP of all transportation improvements listed below. In the event Owner pays all or part of the cost of a TFP project in lieu of construction, the credit shall be determined consistent with RMC 3.10.130.A.1.

8.3.1 Street frontage improvements and mid-block pedestrian crossing improvements on Bear Creek Parkway
8.3.2 Street frontage improvements on NE 76th Street
8.3.3 Intersection improvements at NE 76th Street/166th Ave NE

In order to accommodate Owner construction of transportation improvements prior to City Council decision on inclusion in the TFP, and pursuant to Redmond Municipal Code Chapter 3.10, Section 3.10.130.A, the total cost of improvements shall be estimated prior to any impact fee payment made by Owner and credited against such payment. Owner shall be required to provide a performance assurance device acceptable to the City for the amount of such credit. If the Redmond City Council has approved amendment of the TFP to include any or all the improvements described above as transportation improvements, City shall release Owner from its performance assurance requirement upon completion of the transportation improvements, pursuant to Redmond Municipal Code Chapter 3.10, Section 3.10.130.D. In the event the City Council has approved

amendment of the TFP and the transportation improvements described above are not included, Owner shall pay the remaining traffic impact fees equal to the amount of the credit received. If the City Council has not yet voted on the TFP by the completion of the Project, Owner shall be required to extend or provide a new performance assurance device in the amount of such credit for the time period of the extension.

9. Transportation Management.

9.1 Transportation Mitigation. On-site street and right of way improvements required to mitigate the transportation impacts associated with the Project are outlined in the Master Plan. No additional on-site or off-site transportation mitigation will be required for construction of the Project. Changes to the Project that result in administrative amendments to this Agreement will not result in additional transportation mitigation beyond those described in the Master Plan and this Agreement, so long as the change to the Project generates the same or lesser trips as anticipated with the development outlined in Master Plan, based on the methodology of the Transportation Impact Analysis accompanying the Master Plan.

9.2 Transportation Concurrency Certificate for Development Proposed on or before December 31, 2030. Pursuant to RZC 21.52.010.B.7, development proposed in a building permit application submitted to the City on or before December 31, 2030 as part of Phase I or subsequent phases, as described in the Master Plan, shall be deemed to have met the transportation concurrency requirements set forth in the RZC, so long as the change to the Project generates the same or lesser trips as the project approved as part of the Master Plan, based on the methodology of the Transportation Impact Analysis (Exhibit E) accompanying the Master Plan.

9.3 Transportation Concurrency Certificate for Development Proposed After December 31, 2030. No building permit shall be issued for any new development proposed in a building permit application submitted to the City after December 31, 2030 until the transportation concurrency requirements set forth in RZC 21.52.010 as of the date of this Agreement have been satisfied.

10. **Pedestrian Generating Uses.** Table RZC 21.10.050.B provides that "[n]ew development must retain or replace existing pedestrian generating and retail sales uses." The Code further allows an applicant to modify areas allocated to pedestrian generating and retail sales uses, subject to a minimum floor area to be negotiated as a condition to any Development Agreement.

10.1 Pedestrian Generating Uses Definition. Pedestrian generating uses are not defined in the Code. The Parties agree that pedestrian generating uses include the following subset of uses: Retail; Food and Beverage; personal service uses (subset of Business and Service); copy centers and parcel and mail centers; the customer service portion of financial institutions; Arts, Entertainment, Recreation, and Assembly, Amusement, Sports, Recreation Establishments, and Athletic Clubs and Fitness Centers.

10.2 Applicability of Pedestrian Generating and Retail Sales Uses Requirement. The City interprets new development to include any

changes of use within the Project Limit. Even though the Master Plan will only impact the existing pedestrian generating and retail sales uses located within Buildings 4IC-East, 4IC-West, 4B, 3A and 3D, and the I Garage as shown in the Master Plan (Exhibit C), the minimum floor area for pedestrian generating and retail sales uses will apply to all buildings within the Project Limit.

10.3 **Minimum Required Pedestrian Generating and Retail Sales Uses.** The Parties agree that the minimum pedestrian generating and retail sales uses as defined in subsection 10.1 to be retained within the Project Limit is _170,000 s.f. This minimum limit will apply upon the Effective Date of this Agreement. Owner will submit to the City an annual report during the Term of this Agreement upon request from the City (which request shall be no more frequently than once per calendar year). If an existing tenant vacates space designated as a pedestrian generating or retail sales use, the vacant space shall not, on a stand-alone basis, cause Owner to fall out of compliance with this provision.

11. **Phasing Exceptional Amenities for Additional Height.** The Master Plan demonstrates the Project's compliance with RZC 21.10.050.D to obtain the additional height for the Project. RZC 21.10.050.D.1.c.v.C provides that, "[i]f construction of a multi-building development is to be phased, each phase shall provide for a proportionate installation of amenities." The currently anticipated phasing plan to provide exceptional amenities for additional height under the Residential Option and the Office Option is outlined on p. 23 of the Master Plan (Exhibit C).

11.1 **Fee in Lieu.** RZC 21.10.050.D.1.c.v.C provides that "[n]o phase may depend upon the future construction of amenities unless the development agreement includes a phasing plan that will ensure the public benefit of the amenity is received through on-site development or in-lieu fee payment within a prescribed time horizon." In the Office Option, if the office building at Building 4IC-West is built prior to the residential building at Building 4IC-East, Owner shall pay into escrow a fee in lieu as calculated in Section 11.1.1. If the residential building at Building 4IC-East does not begin construction by the earlier of (i) five years following completion of the office building at Building 4IC-West, or, (ii) the expiration of this Agreement, the fee in lieu shall be released from escrow and paid to the City by the 30th of the following Month. If the fee is paid to the City, the fee in lieu would satisfy the affordable housing requirements for the residential building planned at Building 4IC-East. If the residential building at Building 4IC-East begins construction within the timeframe outlined above, the fee in lieu shall be released from escrow and returned to the Owner by the 30th of the month following commencement of construction.

11.1.1 **Fee in Lieu Calculation.** The fee has been calculated using the fee-in lieu provisions in RZC 21.20.050.B.2 in effect as of the Effective Date of this agreement. The Parties agree that the calculated fee

shown in Exhibit D of this Agreement is the initial fee for the fee in lieu. The fee will be adjusted for the final unit counts included in Building 4IC-East at the time of SPE application (if applicable) and increased by the Seattle Area Case-Schiller Home Price Indes on an annual basis from the date of execution of the Development Agreement until payment.

11.2 Local Commercial Uses. One method for providing EAAH is to provide "10% of new ground level commercial space or a total of 7,000 square feet of total commercial space dedicated to local commercial," as defined in RZC Table 21.10.050C. Total commercial space includes all tenant space within the Project site. A proposed tenant will be determined to fall within the "local commercial" definition at the time of the initial Tenant Improvement permit application and will continue to be considered a "local commercial" use even if the business expands to additional locations in the future. If this method is used, Owner will demonstrate initial compliance by documenting in each Site Plan Entitlement application for a new building its compliance with this provision. After receipt of the Certificate of Occupancy issued for the first building constructed under this Master Plan utilizing EAAH, Owner will submit to the City a subsequent annual report during the Term of this Agreement upon request from the City (which request shall be no more frequently than once per calendar year). Vacant space or an existing tenant vacating space shall not, on a stand-alone basis, cause Owner to fall out of compliance with this provision.

11.3 Small Commercial Uses. An additional method for providing EAAH is to provide "the lesser of 25% or 4,000 s.f. of new commercial space no larger than 1,000 square feet." If this method is used, Owner will demonstrate initial compliance by documenting in each Site Plan Entitlement application for a new building its compliance with this provision. After receipt of the Certificate of Occupancy issued for the first building constructed under this Master Plan utilizing EEAH, Owner will submit to the City a subsequent annual report during the Term of this Agreement upon request from the City (which request shall be no more frequently than once per calendar year). Vacant space, or an existing tenant vacating space shall not, on a stand-alone basis, cause Owner to fall out of compliance with this provision.

11.4 Sustainable Development. Owner will achieve LEED Platinum certification, or equivalent, for all new buildings in Phases 2-5. The addition to the parking garage (Phase 1) is not required to achieve any green building certification. Owner will, as a condition of issuance of a Certificate of Occupancy for each new building, provide the certification of compliance with this requirement for the building seeking a Certificate of Occupancy.

12. Enhanced Tree Preservation. Owner will preserve up to 60% of existing significant trees, while the code requires only 35% preservation, as outlined in page 73 of the Master Plan (Exhibit C). The percentage of trees to be retained may be reduced as an administrative amendment so long as the total amount of trees to be preserved exceeds 45% on the development site.

13. Linear Pedestrian Plaza. Owner will construct, operate, and maintain an approximately 20,566 square feet multi-purpose pedestrian plaza that connects 73rd Way with Bear

Creek Parkway, as depicted in the approved Master Plan (Exhibit C) to be constructed with Buildings 4IC-East and 4IC-West, whichever is first. Owner shall maintain the plaza in a safe, clean, and sanitary condition. The public shall be allowed access to the public plaza at all times except during periods that the plaza must be closed for any necessary maintenance or repair. Owner may establish reasonable rules for the use of the plaza as long as such rules do not unreasonably limit public access.

14. NE 74th Street Improvements. Owner will convert NE 74th Street from 164th Street NE to 166th Street NE into a pedestrian-first public plaza by incorporating alternative paving, additional landscaping, street furniture and lighting. These improvements will create or maintain approximately 71,731 square feet of dedicated additional open space and pedestrian space. The new 74th St paving design will extend across 164th and 166th streets with tabletop intersections to provide traffic calming and prioritize pedestrian circulation. The timing of the proposed improvements will coincide with the development of the adjacent Buildings 3A or 3D, whichever comes first. Buildings 3A and 3D are currently anticipated to occur to be constructed in Phases 4 and 5, respectively.

15. Mid-Block Crossing(s). Owner will construct mid-block crossing at 73rd Way between 164th and 166th Ave with Phase 2, as part of the 4IC buildings, and additional mid-block crossings at 72nd Way and Bear Creek Parkway between 164th and 166th Street as part of the construction of Building 4B, currently anticipated to be constructed in Phase 3.

16. Additional Intersection Improvements. Owner will construct enhanced pedestrian intersection improvements at 166th and 76th Street, (similar to the existing Leary and Cleveland St intersection) including signalized pedestrian crossing from the light rail station, raised crossing and accessible curb ramps extensions, and special paving. These improvements will be constructed as part of Phase 3.

17. Green Roofs. The proposed project will include green roofs on non-mechanical or amenity areas of new building rooftops, excluding the two-story garage addition at the I Garage.

18. Bike Infrastructure. Owner will construct bicycle facilities on NE 164th Street and NE 166th Street to link existing bike lanes and trails through the site and connect to the new light rail station. The bicycle improvements along NE 164th Street will occur as part of the construction of Building 4IC-West, currently anticipated to be built in Phase 2A. The bicycle improvements along NE 166th Street will occur as part of the construction of Building 4IC-East, currently anticipated to be built in Phase 2B.

19. Enhanced Pedestrian Oriented Design. The Owner will provide several enhancements intended to improve the pedestrian experience consistent with the precedent character examples outlined in pages 30-35 of the Master Plan (Exhibit C). Specifically, Owner will provide (1) overhead weather protection along new commercial retail facades that exceed code requirements, (2) pedestrian scaled lighting through building mounted lighting, light bollards, or pedestrian scaled light poles at pedestrian gateways, (3) a minimum of 100 SF of furnished seating groups/gathering areas at the Linear N-S Pedestrian Plaza between buildings 4ICW and 4ICE and Gateways 1 and 2, (4) and overhead catenary lighting or art installation between buildings 4ICW

and 4ICE. These enhanced Pedestrian-Oriented Design elements will be provided on a phased basis during the corresponding construction phase of new building construction physically closest to the respective improvement. The NE 74th St. enhancements will be completed with the earlier of Phase 4 or 5.

20. Groundwater aquifer impact mitigation. RZC 21.10.050 permits one story of below grade parking to serve as replacement retail parking. Despite this allowance, Owner agrees that no new below-grade parking will be constructed as part of the Project.

21. Public Benefit. The City agrees that the commitments made by Owner under this Agreement provide sufficient public benefit to meet the requirements of RZC 21.76.070.L.3.e.

22. Transfer of Ownership. In the event of transfer of ownership of all or any portion of the Property, the benefits accruing to, and the obligations placed upon the Owner under this Agreement shall run with the land and title to the Property and inure to the benefit of, and be binding upon, each person having any right or title or other legal interest in the Property with respect to that party's interest in the Property. This Agreement shall be deemed to create privity of contract and estate with and among all persons and entities acquiring any interest in the Property subsequent to the date hereof.

23. Miscellaneous Provisions.

23.1 Code Citations. All citations and references to the Redmond Zoning Code and Redmond Municipal Code in this Agreement shall refer to those provisions in force as of the date of this Agreement.

23.2 Recording. This Agreement shall be recorded with the King County Recorder's Office. The provisions of this Agreement shall run with the land and be binding upon and inure to the benefit of the Parties, their successors in interest and assigns.

23.3 Amendments. Amendments to this Agreement shall be governed by Section 4.5 above.

23.4 Specific Performance. The Parties specifically agree that damages are not an adequate remedy for breach of this Agreement and that the Parties are entitled to specific performance of all terms of this Agreement by any Party in default hereof.

23.5 Governing Law - Venue. This Agreement shall be governed and construed in accordance with the laws of the State of Washington, notwithstanding any conflicts of law provisions. Venue for any litigation under this Agreement shall be King County Superior Court.

23.6 Notices. All notices and other communications required or otherwise provided for by this Agreement shall be in writing and shall be given to the following persons:

City of Redmond:
Attention: Carol Helland
Director of Planning and

Fairbourne Properties LLC
Attention: _____'=
200 S Michigan Avenue, Suite 400

Community Development
P.O. Box 97010
Mail Stop: 4SPL
Redmond, WA 98073-9710

Chicago, IL 60601

And to its Attorney:
Ogden Murphy Wallace, P.L.L.C.
Attention: James E. Haney
901 Fifth Avenue, Suite 3500
Seattle, WA 98164-2008

And to its Attorney:
McCullough Hill, PLLC
Attention: Katie Kendall
701 Fifth Avenue, Suite 6600
Seattle, WA 98104

The Parties may, from time-to-time, notify each other in writing of changes in the names and addresses of persons to receive notices and communications and such changes shall become effective upon receipt by the non-notifying Party. Notices shall be deemed received within three days after being placed in the United States Mail, properly addressed and postage prepaid, or upon personal delivery.

23.7 Full Understanding – Construction. The Parties each acknowledge, represent and agree that they have read this Agreement, that they fully understand the terms thereof; that they have had the opportunity to be fully advised by their legal counsel and any other advisors with respect thereto; and that they are executing this Agreement after sufficient review and understanding of its contents.

23.8 Attorney's Fees. If either Party institutes litigation against the other Party to enforce any provision of this Agreement or to redress any breach thereof, the prevailing Party shall be entitled to recover its costs and reasonable attorney's fees incurred in such litigation.

23.9 Severability. If any section, sentence, clause or phrase of this Agreement is determined to be invalid or unconstitutional by any court of competent jurisdiction, the remaining sections, sentences, clauses and phrases shall remain viable and in full force and effect.

23.10 Counterparts. This Agreement may be executed in counterparts, with each Party sending a .pdf of its signature to the other Party via email transmission. This Agreement, when fully executed and signature pages exchanged as provided herein shall be effective as the original document.

23.11 Equal Opportunity to Participate in Drafting. The Parties have participated and had an equal opportunity to participate in the drafting of this Agreement. No ambiguity shall be construed against any Party based upon a claim that such Party drafted the ambiguous language.

23.12 Exhibits. This Agreement includes the following Exhibits:

Exhibit A: Legal Description of the Property
Exhibit B: Depiction of the Property
Exhibit C: Master Plan

Exhibit D: Fee-in-Lieu Calculation
Exhibit E: Traffic Impact Analysis

23.13 Final and Complete Agreement. This Agreement constitutes the final and complete expression of the Parties on all subjects relating to the development of the Property. This Agreement supersedes and replaces all prior agreements, discussions and representation on all subjects relating to the development of the Property. Neither Party is entering into this Agreement in reliance on any oral or written promises, inducements, representations, understandings, interpretations or agreements other than those contained in this Agreement and the exhibits hereto.

23.14 Effect of Expiration or Termination. Upon expiration or sooner termination of this Agreement, all rights and obligations of the Parties under this Agreement shall terminate and be of no further effect. All development for which a permit is issued after the expiration or termination of this Agreement shall be required to comply with all applicable development regulations in effect at that time and shall be required to pay impact fees in effect at the time of permit issuance. All development for which a permit is issued after expiration or termination of this Agreement shall be required to satisfy any applicable concurrency requirements notwithstanding the issuance of any concurrency certificate during the effective period of this Agreement. All development for which a permit is issued after the expiration or sooner termination of this Agreement shall be subject to SEPA review if not previously completed and may be conditioned to mitigate any environmental impacts of such development, notwithstanding any mitigation provided during the term of this Agreement and the City shall not be required to credit any mitigation provided during the term of this Agreement against any mitigation subsequently determined necessary to mitigate the environmental impacts of any development for which a permit is issued after expiration or sooner termination of this Agreement. It is the intent of the Parties that the requirements of this Agreement shall apply only during its term and that once this Agreement has expired or is terminated, all rights created by the terms of this Agreement will have expired or terminated. All conditions of any permit approvals shall continue to apply, however, as long as the development approved by such permits remains on the Property.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

FAIRBOURNE PROPERTIES, LLC **a Delaware limited liability company**	**CITY OF REDMOND**
By: _____	**By: _____**
Its Manager	**Angela Birney** **Its: Mayor**
Date:_____	**Date: _____**

Attest:

_____

Cheryl D. Xanthos, City Clerk

APPROVED AS TO FORM:

_____

James E. Haney, City Attorney

STATE OF WASHINGTON)
) ss.
COUNTY OF _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____ of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: _____

_____
Printed:_____
NOTARY PUBLIC in and for Washington
Residing at: _____

My appointment expires: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Angela Birney is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Mayor of the CITY OF REDMOND, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: _____

_____
Printed: _____
NOTARY PUBLIC in and for Washington
Residing at: _____
My appointment expires: _____

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

SITE NOTES

SITE ADDRESSES:
7530 164TH AVE NE
7345 164TH AVE NE
7330 164TH AVE NE
7211 166TH AVE NE
REDMOND, WA 98052

TAX ACCOUNT NOS.:
720241-0010-00
720241-0010-91
720241-0020-08
720241-0030-06
720241-0050-01
720241-0134-01

ZONING:
TWNC – TOWN CENTER NEIGHBORHOOD COMMERCIAL

ZONING AGENCY:
CITY OF REDMOND
PLANNING DEPARTMENT
15670 NE 85TH STREET
REDMOND, WA 98073
(425) 556-2440

SETBACKS:
CURRENT SETBACK REQUIREMENTS SUBJECT TO SITE PLAN REVIEW. CURRENT SETBACKS MAY DIFFER FROM THOSE IN EFFECT DURING DESIGN/CONSTRUCTION OF EXISTING IMPROVEMENTS.

THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE GOVERNING JURISDICTION INDICATES THAT STRUCTURES ON THIS PROPERTY COMPLIED WITH MINIMUM SETBACK AND HEIGHT REQUIREMENTS FOLLOWING CONSTRUCTION.

FLOOD ZONE:
THIS SITE APPEARS ON NATIONAL FLOOD INSURANCE RATE MAP, DATED AUGUST 19, 2020, COMMUNITY PANEL NO. 53033C0386H, AND IS SITUATED IN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AREA:
PARCEL 1-A AS SHOWN CONTAINS 338,510 SQUARE FEET OR 7.7711 ACRES, MORE OR LESS.
PARCEL 1-B AS SHOWN CONTAINS 123,429 SQUARE FEET OR 2.8335 ACRES, MORE OR LESS.
PARCEL 1-C AS SHOWN CONTAINS 362,023 SQUARE FEET OR 8.3109 ACRES, MORE OR LESS.
PARCEL 1-E AS SHOWN CONTAINS 18,409 SQUARE FEET OR 0.4226 ACRES, MORE OR LESS.
PARCEL 5-C AS SHOWN CONTAINS 67,556 SQUARE FEET OR 1.5509 ACRES, MORE OR LESS.(NOT INCLUDED IN TITLE REPORT)
PARCEL 5-D AS SHOWN CONTAINS 24,998 SQUARE FEET OR 0.5739 ACRES, MORE OR LESS.

TOTAL SITE AS SHOWN CONTAINS 934,915 SQUARE FEET OR 21.4627 ACRES, MORE OR LESS.

*PARKING SPACE COUNT:
PARKING SPACES TOTAL 1,664 INCLUDING 45 DISABLED PARKING SPACES AND 5 ELECTRIC VEHICLE STATIONS. 7 PARKING SPACES CONVERTED TO CAR WASH AREA NOT INCLUDED.

SUBSTRUCTURES:
BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORDS MAPS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE BY FEATURES LOCATED IN THE FIELD. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY.

TELECOMMUNICATIONS/FIBER OPTIC DISCLAIMER:
RECORDS OF UNDERGROUND TELECOMMUNICATIONS AND/OR FIBER OPTIC LINES ARE NOT ALWAYS AVAILABLE TO THE PUBLIC. BRH HAS NOT CONTACTED EACH OF THE MANY COMPANIES, IN THE COURSE OF THIS SURVEY, WHICH COULD HAVE UNDERGROUND LINES WITHIN ADJACENT RIGHTS-OF-WAY. THEREFORE, BRH DOES NOT ACCEPT RESPONSIBILITY FOR THE EXISTENCE OF UNDERGROUND TELECOMMUNICATIONS/FIBER OPTIC LINES WHICH ARE NOT MADE PUBLIC RECORD WITH THE LOCAL JURISDICTION. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.

DESCRIPTION:

PARCEL A:
PARCELS 1-A AND 1-B, REDMOND TOWN CENTER, A BINDING SITE PLAN, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 176 OF PLATS, PAGES 56 THROUGH 67, INCLUSIVE, IN KING COUNTY, WASHINGTON; AND REVISED PARCEL 1-C, REDMOND TOWN CENTER, AMENDED BINDING SITE PLAN OF PARCELS 1-C AND 1-D, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 271 OF PLATS, PAGES 89 THROUGH 92, INCLUSIVE, IN KING COUNTY, WASHINGTON; AND PARCEL 1-E, REDMOND TOWN CENTER, AMENDED BINDING SITE PLAN OF PARCELS 1-C AND 1-E, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 261 OF PLATS, PAGES 11 THROUGH 16, INCLUSIVE, IN KING COUNTY, WASHINGTON;

PARCEL A-1:
THOSE CERTAIN NON-EXCLUSIVE EASEMENTS AS DESCRIBED IN THAT CERTAIN FIRST AMENDED AND RESTATED DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR REDMOND TOWN CENTER DATED DECEMBER 17, 1996, BY AND BETWEEN TOWN CENTER ASSOCIATES AND WALLS, BUTLER, MADDEN & TEEL, L.P., RECORDED DECEMBER 30, 1996 UNDER RECORDING NO. 9612301015 AND AMENDED BY INSTRUMENTS RECORDED UNDER RECORDING NOS. 9710220652, 9812040966, AND 20191206000770, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: NOT PLOTTABLE.

PARCEL A-2:
THOSE CERTAIN EASEMENTS AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED MAY 2, 1996, BY AND BETWEEN TOWN CENTER ASSOCIATES AND LAKE WASHINGTON SCHOOL DISTRICT NO. 414, RECORDED MAY 3, 1996 UNDER RECORDING NO. 9605031084, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: IDENTIFIES COMMON AREAS IN ENTIRE BINDING SITE PLAN BEING ROADWAYS WITHIN BINDING SITE PLAN. BLANKET OVER ROADWAYS.

PARCEL A-3:
THOSE CERTAIN NON-EXCLUSIVE EASEMENTS AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED AUGUST 28, 1997, BY AND BETWEEN TOWN CENTER ASSOCIATES AND REDINN HOTEL, L.P., RECORDED FEBRUARY 26, 1998 UNDER RECORDING NO. 9802262288, IN KING COUNTY, WASHINGTON, BEING A RE-RECORDING OF DOCUMENT RECORDED UNDER RECORDING NO. 9709030819.

SURVEYOR'S NOTE: IDENTIFIES COMMON AREAS IN ENTIRE BINDING SITE PLAN BEING ROADWAYS WITHIN BINDING SITE PLAN. BLANKET OVER ROADWAYS.

PARCEL A-4:
THOSE CERTAIN NON-EXCLUSIVE EASEMENTS AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED MARCH 13, 1998, BY AND BETWEEN TOWN CENTER ASSOCIATES AND RECREATIONAL EQUIPMENT, INC., RECORDED MARCH 13, 1998 UNDER RECORDING NO. 9803131453, AND AMENDED BY INSTRUMENTS RECORDED UNDER RECORDING NOS. 20020405002627 AND 20020910000707, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: IDENTIFIES COMMON AREAS IN ENTIRE BINDING SITE PLAN BEING ROADWAYS WITHIN BINDING SITE PLAN. BLANKET OVER ROADWAYS.

PARCEL A-5:
THOSE CERTAIN GRANT OF EASEMENTS AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED JULY 12, 1999, BY AND BETWEEN PPR REDMOND RETAIL LLC AND PPR REDMOND OFFICE LLC, RECORDED JULY 12, 1999 UNDER RECORDING NO. 19990712002115, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: IDENTIFIES COMMON AREAS IN ENTIRE BINDING SITE PLAN BEING ROADWAYS WITHIN BINDING SITE PLAN. BLANKET OVER ROADWAYS AND AS DESCRIBED IN RECORDED DOCUMENT.

PARCEL A-6:
THOSE CERTAIN EASEMENT GRANT AS DESCRIBED IN THAT CERTAIN PROJECT AGREEMENT DATED AUGUST 27, 2002, BY AND BETWEEN PPR REDMOND RETAIL LLC, PPR REDMOND OFFICE LLC AND REDMAR PROPERTY L.P., RECORDED AUGUST 30, 2002 UNDER RECORDING NO. 20020830002260, IN KING COUNTY, WASHINGTON, AND AMENDED BY THAT CERTAIN UNRECORDED FIRST AMENDMENT TO PROJECT AGREEMENT.

SURVEYOR'S NOTE: NOT PLOTTABLE.

PARCEL A-7:
THOSE CERTAIN GRANT OF EASEMENTS AS DESCRIBED IN THAT CERTAIN OPERATION AND EASEMENT AGREEMENT DATED AUGUST 31, 2012, BY AND BETWEEN PPR REDMOND RETAIL LLC; PPRT REDMOND OFFICE I LLC AND PPRT REDMOND OFFICE I LLC, RECORDED OCTOBER 8, 2012 UNDER RECORDING NO. 20121008000641, AND AMENDED BY INSTRUMENT RECORDED UNDER RECORDING NO. 20130529002316, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: NOT PLOTTABLE, IDENTIFIES UTILITY EASEMENTS IN COMMON ROADWAY AREAS AND ROADWAY EASEMENTS BEING ROADWAY WITHIN BINDING SITE PLANS.

PARCEL A-8:
THAT CERTAIN EASEMENT GRANT AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED SEPTEMBER 2, 1997, BY AND BETWEEN REDINN HOTEL, L.P. AND TOWN CENTER ASSOCIATES, RECORDED SEPTEMBER 3, 1997 UNDER RECORDING NO. 9709030820, IN KING COUNTY, WASHINGTON; (BENEFITS PARCELS 1-A OF SAID REDMOND TOWN CENTER, A BINDING SITE PLAN).

PARCEL A-9:
THOSE CERTAIN EASEMENTS FOR CURB CUTS, ENTRANCES, DRIVE AISLES AND RAMPS, AND FOR PEDESTRIAN AND VEHICULAR TRAFFIC AS ESTABLISHED BY DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS – PARCEL 5-B REDMOND TOWN CENTER, RECORDED DECEMBER 29, 2015, UNDER RECORDING NUMBER 20151219000777, AND AMENDED BY INSTRUMENT RECORDED UNDER RECORDING NUMBER 20190712000715.

PARCEL D:
NEW PARCEL 5-D, REDMOND TOWN CENTER, AMENDED BINDING SITE PLAN OF PARCEL 5-B, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 271 OF PLATS, PAGES 70 THROUGH 74, INCLUSIVE, IN KING COUNTY, WASHINGTON.

PARCEL D-1:
THOSE CERTAIN NON-EXCLUSIVE EASEMENTS AS DESCRIBED IN THAT CERTAIN FIRST AMENDED AND RESTATED DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR REDMOND TOWN CENTER DATED DECEMBER 17, 1996, BY AND BETWEEN TOWN CENTER ASSOCIATES AND WALLS, BUTLER, MADDEN & TEEL, L.P., RECORDED DECEMBER 30, 1996 UNDER RECORDING NO. 9612301015 AND AMENDED BY INSTRUMENTS RECORDED UNDER RECORDING NOS. 9710220652, 9812040966, AND 20191206000770, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: NOT PLOTTABLE.

PARCEL D-4:
THOSE CERTAIN NON-EXCLUSIVE EASEMENTS AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED MARCH 13, 1998, BY AND BETWEEN TOWN CENTER ASSOCIATES AND RECREATIONAL EQUIPMENT, INC., RECORDED MARCH 13, 1998 UNDER RECORDING NO. 9803131453, AND AMENDED BY INSTRUMENTS RECORDED UNDER RECORDING NOS. 20020405002627 AND 20020910000707, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: IDENTIFIES COMMON AREAS IN ENTIRE BINDING SITE PLAN BEING ROADWAYS WITHIN BINDING SITE PLAN. BLANKET OVER ROADWAYS.

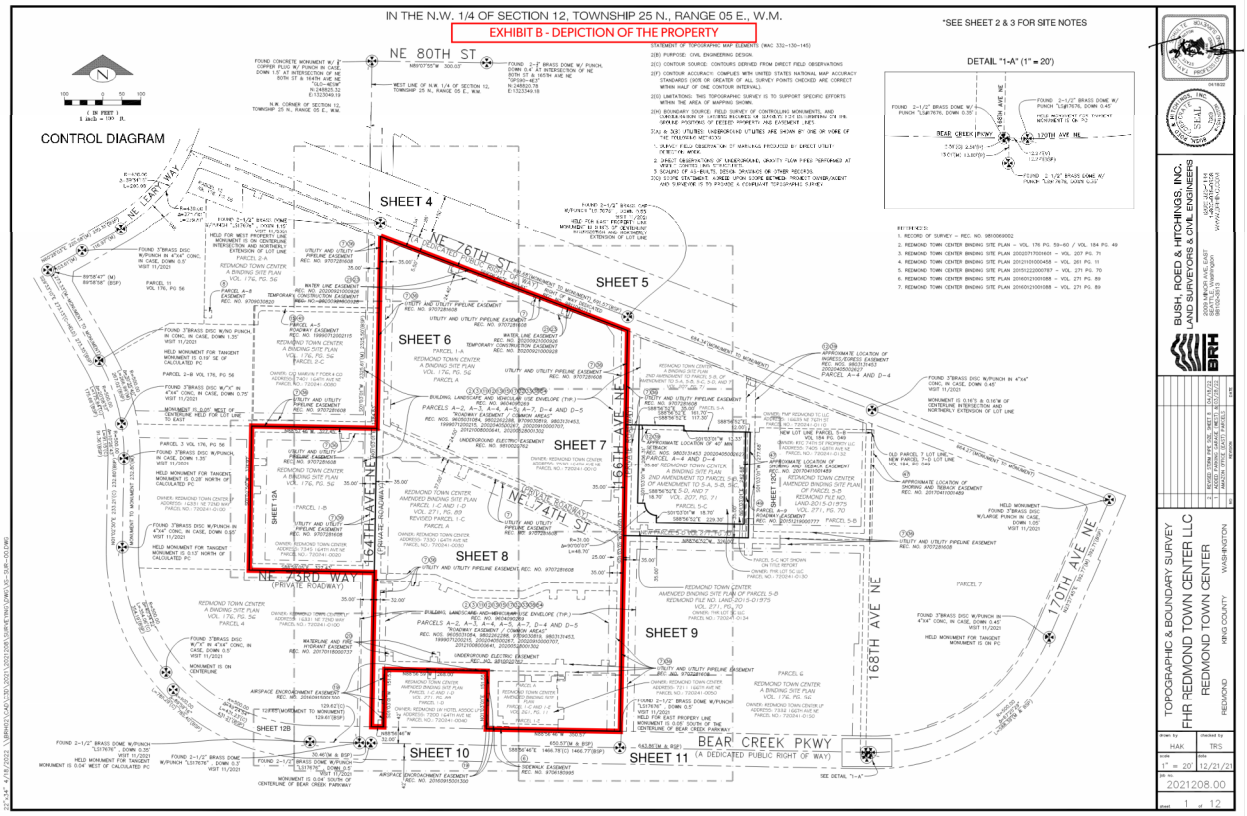
PARCEL D-5:
THOSE CERTAIN GRANT OF EASEMENTS AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT DATED JULY 12, 1999, BY AND BETWEEN PPR REDMOND RETAIL LLC AND PPR REDMOND OFFICE LLC, RECORDED JULY 12, 1999 UNDER RECORDING NO. 19990712002115, IN KING COUNTY, WASHINGTON.

SURVEYOR'S NOTE: IDENTIFIES COMMON AREAS IN ENTIRE BINDING SITE PLAN BEING ROADWAYS WITHIN BINDING SITE PLAN. BLANKET OVER ROADWAYS AND AS DESCRIBED IN RECORDED DOCUMENT.

TITLE REPORT REFERENCE:
THIS SURVEY WAS CONDUCTED ACCORDING TO THE DESCRIPTION SHOWN, FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, GUARANTEE/CERTIFICATE NO. 214299-SC, DATED OCTOBER 25, 2021. THE EASEMENTS SHOWN OR NOTED HEREON RELATE TO THIS COMMITMENT.

EXHIBIT B

DEPICTION OF THE PROPERTY



REDMOND
TOWN CENTER
MASTER PLANNED
DEVELOPMENT

Redmond, WA

GGLO

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May 20, 2025
Round 3 Resubmittal

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LOCATION

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SECTION 1 - INTRODUCTION

PROJECT INTRODUCTION

INTRODUCTION

As Redmond leads the way in reinventing suburban downtowns, the Redmond Town Center Master Plan seeks to reinvent a car-dependent suburban shopping center and office park into a walkable mixed use development easily accessible by bike and transit. In addition to bringing new residents and employees to the site, the plan will enliven the pedestrian ground plane, energize the street scape, provide a more engaging retail experience, expand public gathering spaces, replace existing surface parking lots, and provide a mix of uses to promote a truly "18hr x 7 day" town center.

LOCATION

The project boundary at the south side of downtown encompasses approximately 19 acres at the heart of the original 120 acre Redmond Town Center Area. The site is generally bounded by 76th St and the Redmond Connector to the North, 164th and 166th to the East and West, and Bear Creek Parkway to the South. The plan maintains and supports the existing retail core center on 74th St while providing improved connections to the surrounding neighborhood and open space that was remains in preservation from the original masterplan.

PROJECT GOALS

NEIGHBORHOOD AXON VIEW
NTS

PROJECT GOALS

Reinvention of an auto-oriented retail shopping center and office park into a true mixed-use, transit oriented, walkable town center to better serve the Redmond Community.

NEW FRONT DOOR AND DENSITY SURROUNDING DOWNTOWN AND REGIONAL TRANSIT

The addition of light rail to the neighborhood is a game changer, both for Redmond Town Center and for the Region as a whole, providing predictable, timely connectivity to Bellevue, Seattle, SeaTac Airport, and other major population centers throughout the Pacific Northwest. Repositioning the project to create a more engaging streetscape and ground plane to pull pedestrian traffic into the heart of the project from the new light rail station, while creating new transit oriented housing and jobs, which will combine to support a thriving retail town center immediately adjacent to downtown Redmond. Site gateways 1 and 2, as described on pp 30 are focal points of this design, creating an urban edge and represent the primary front doors to Redmond Town Center with porosity and pathways into the site.

ACTIVATION OF THE GROUND PLANE & STREETSCAPE

An active and engaging ground plane is critical to the creation of the type of retail that will be successful in a post-Covid world. Pedestrian friendly street design, indoor/outdoor spaces, and public gathering zones to encourage cross pollination amongst the mix of uses will help transition the current “campus” setting into a true “community” space.

PEDESTRIAN AND BICYCLE CONNECTIVITY THROUGH SITE

Proposed development will include associate streetscape improvements, traffic calming, new bike lanes, enhanced pedestrian crossing to prioritize and encourage pedestrian and bicycle traffic through the site, all focused on the center core and associated new public plazas and green spaces.

CREATE A DYNAMIC 18 HOUR A DAY X 7 DAY A WEEK SITE NEIGHBORHOOD

A true mixed-use neighborhood relies on a mix of uses activating the ground plane throughout the day along with a full time resident population. The additional residential and office density create the necessary critical mass of population to drive the desired retail merchandising mix. Creating density of jobs and housing in walkable Transit Oriented Development “T.O.D.” sites reduces the traffic impact of development and the environmental burden of new growth. New housing will include a min. 20% affordable units at 60% AMI and support local business.

MITIGATE INFRASTRUCTURE / ENVIRONMENTAL IMPACT

Added density will be thoughtfully designed to mitigate impacts and enhance the surrounding environment. The project took great strides to reduce ground water impacts by eliminating below grade parking. All new buildings will be designed to LEED Platinum rating or equivalent.

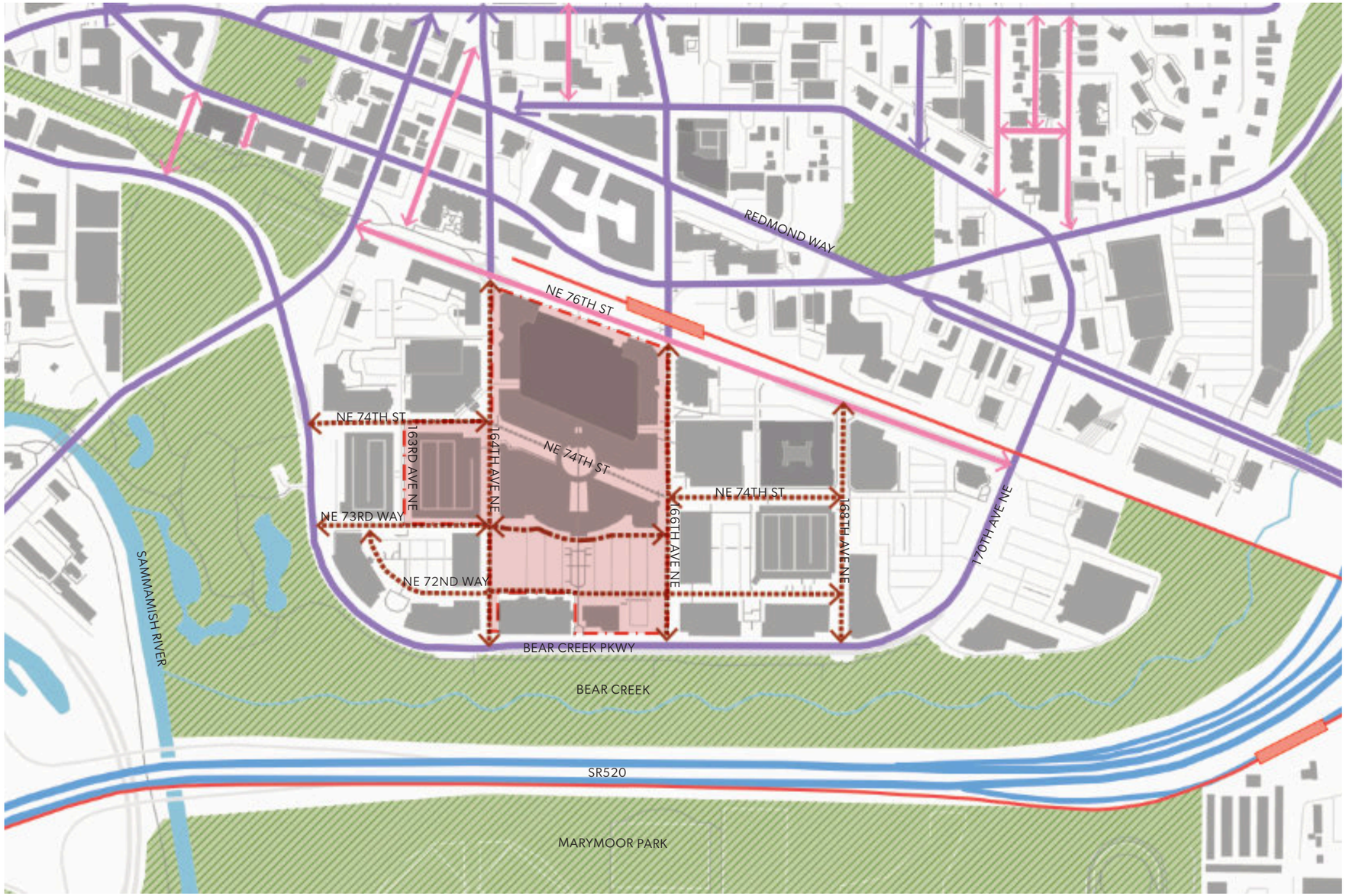
GREATER DIVERSITY OF BUILDING DESIGN + CHARACTER

Proposed residential development will diversify the current office campus / regional mall, and allow for a transition to a more natural neighborhood like Park Lane in Kirkland or Ballard Avenue in Seattle. Throughout the center, the ground plane will continue to contain a mix of uses that will engage with the street and sidewalk.

PUBLIC BENEFITS

Please see the proposed Development Agreement Public Benefits Scorecard for additional details on the project goals and benefits.

SITE CONTEXT



LEGEND

- PROJECT BOUNDARY
- LIGHT RAIL
- LIGHT RAIL STATION
- SR520
- ARTERIAL STREET (EXISTING PUBLIC STREET)
- ACCESS STREET (EXISTING PUBLIC STREET)
- EXISTING PRIVATE STREET
- WATERWAYS
- OPEN SPACE AND NATURAL LANDSCAPE

SITE CONTEXT MASTER PLAN
NTS

SITE HISTORY

1934 AERIAL PHOTO - LOOKING SOUTH
NTS

1990 AERIAL PHOTO - REDMOND GOLF LINKS
NTS

Historic Derby Days

Microsoft Halo Launch Party

Redmond Car Show

HISTORIC REDMOND

Archaeological sites at Bear Creek and the Marymoor Park date to the early to mid Holocene approximately 10,000 years ago. The area is located in the traditional territory of the Salish people, including the Muckleshoot, Tulalip,and Stillaguamish tribes.

The first European settlers did not arrive at the land adjacent to the Sammamish Slough until the 1870s, with the first post office established in 1881. The area was initially referenced to as Salmonberg due to the abundant Salmon population before being official named Melrose and eventually Redmond in 1883.

REDMOND GOLF LINKS

James and Rose Hubbart incorporated Redmond Golf Links on August 8, 1931. They laid out the golf course on what had once been Luke McRedmond's homestead now the site of Redmond Town Center. The Golf Links Clubhouse occupied what had been Luke's daughter's home and hotel, now referred to as the Justice White House on Leary Way.

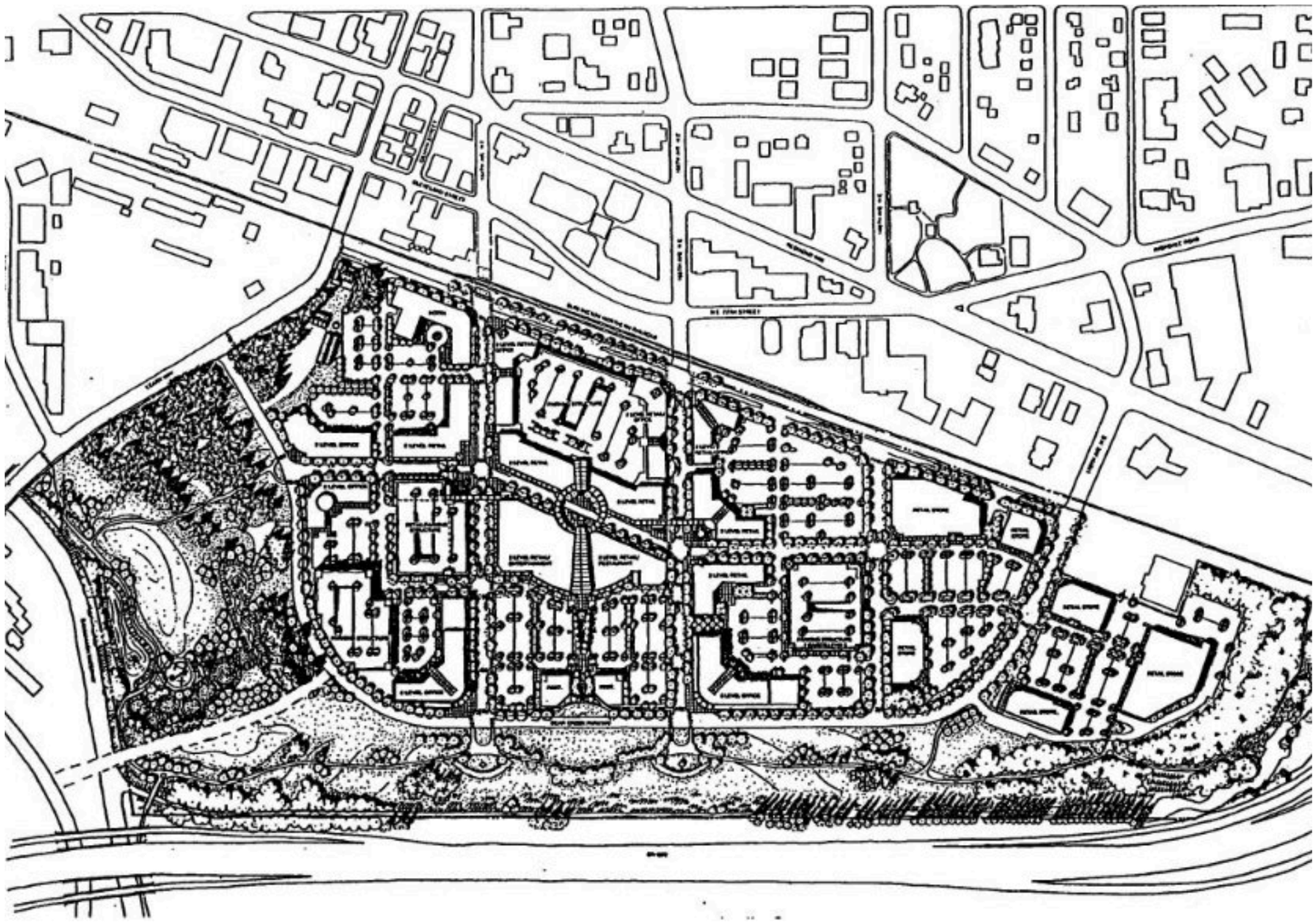
In 1978, concerned citizens formed Civic Action on Redmond Environment (CARE), a group which opposed the area being developed into a shopping center. The 1979 mayoral race featured the discussion of keeping the golf course as is or changing it.

REDMOND TODAY

Today, Redmond enjoys a diverse and growing economic base. The community is home to some of the major high-tech firms in the country, including Microsoft, Nintendo of America, Honeywell, General Dynamics Airborne Electronic Systems, and Medtronic Emergency Response Systems. Redmond is also the headquarters of such businesses as Genie Industries. A strong retail sector is enhanced by Redmond Town Center, an open-air mixed-use center featuring 110 stores, 22 restaurants, one hotel, and 600,000 square feet of office space.

From an original incorporated area of three square blocks, the City has expanded to its present size of over 17.25 square miles. Regional growth around the Eastside will continue to impact Redmond as more people and businesses are attracted to the area.

DEVELOPMENT HISTORY



1995 TOWN CENTER MASTER PLAN
NTS

PROJECT HISTORY

- **120-acre Golf Course annexed in 1986,** after a 6-year annexation process
- Planned for a Regional Shopping Center and Mixed-Use Development in 1995
- Annexation ordinance contained **37 conditions,** or objectives, for development of the golf course:
  - Retail Center as the **Focal point for Downtown**;
  - **Utilize Density** at the Center of the Project to **minimize land area** and ensure **preservation of Open Space;**
  - Include a **mix of uses** - including Retail, Office, Residential;
  - **Active Open Space and Public Amenities;**
  - **Engage with Downtown Redmond;**
  - **Encourage Pedestrian Circulation** to Downtown Redmond
- The 37 Conditions, codified in 1986 and further refined in the Master Plan, still represent design best practices.

1995 TOWN CENTER MASTER PLAN PLANNING CONCEPTS

- Consistency with Redmond's character
- Project integration with downtown Redmond
- Focus on pedestrians
- Site integration and comparison shopping
- Convenient, unobtrusive parking
- Visual connections with Redmond
- Preservation of the green gateway to Redmond

ADJACENT DEVELOPMENTS

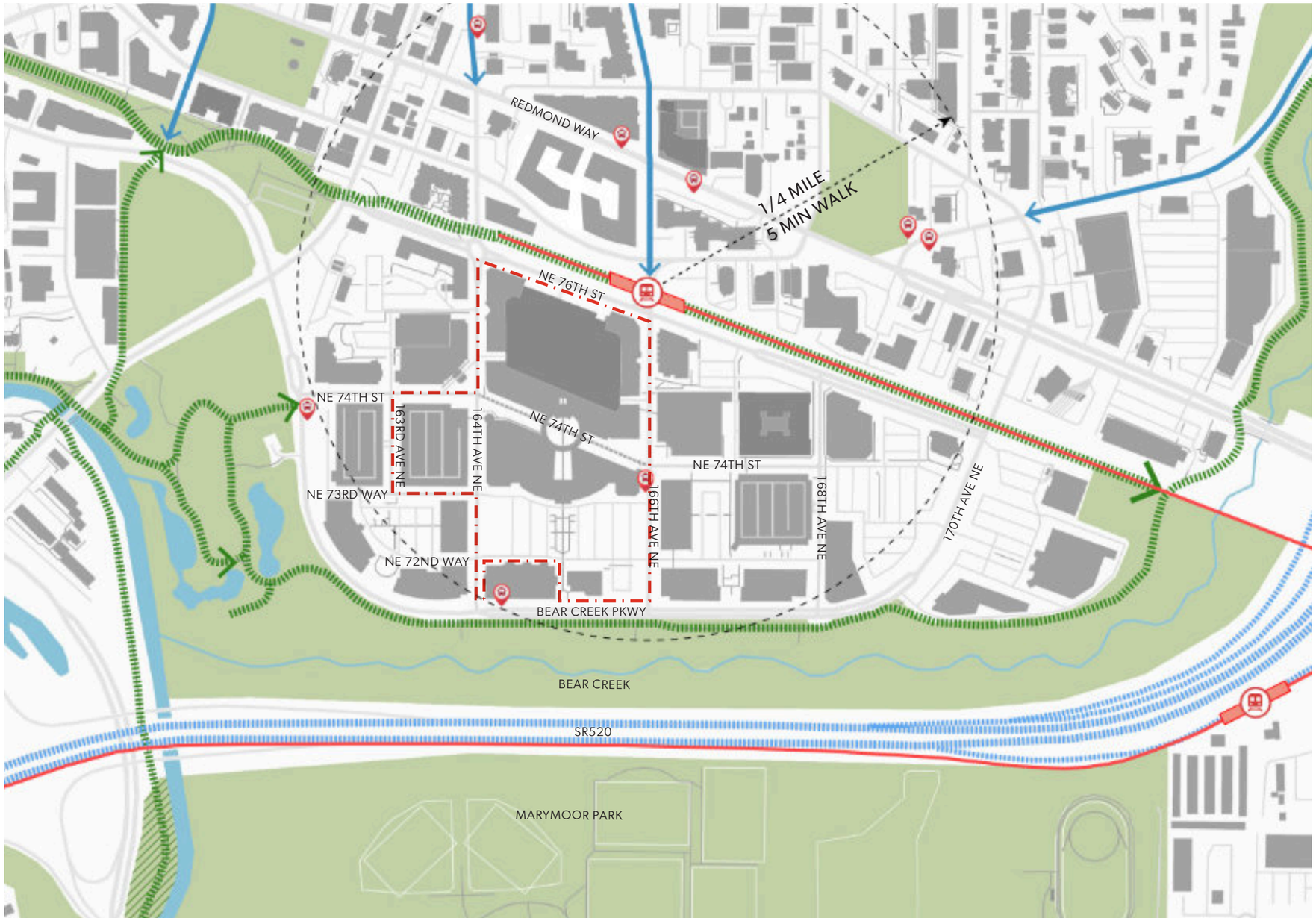
ADJACENT DEVELOPMENTS MAP
NTS

LEGEND

- PROJECT BOUNDARY
- UNDER CONSTRUCTION
- COMPLETED
- DESIGN OR UNDER REVIEW

1. REDMOND CENTRAL
2. REDMOND CENTRAL
3. PENNY LANE III-LOT 18
4. PENNY LANE II
5. AUTHENTIC MOTORCARS
6. ANDERSON PARK HOTEL
7. BRIGHT ANGELS ACADEMY
8. BEAR CREEK SHOPPING CENTER INFILTRATION UPGRADES
9. BILL BROWN BUILDING SIGNAGE AND CANOPIES
10. PORCH AND PARK
11. BARBER BOUNDARY LINE ADJUSTMENT
12. REDMOND RIVERWALK CONDOMINIUM-RECLADDING PROJECT
13. CLEVELAND
14. CITY-OWNED BUILDING DEMOLITION
15. AMLI REDMOND WAY
16. MCDONALDS REMODEL
17. ANDERSON PARK WALL CONDUIT
18. ANDERSON PARK APARTMENTS
19. THE STELVIO
20. LAKE HILLS TRUNK AND NORTHWEST LAKE SAMMAMISH INTERCEPTOR UPGRADE
21. LMC MARYMOOR SOUTH PARK
22. HOMEGROWN

EXISTING PEDESTRIAN AND BIKE ANALYSIS



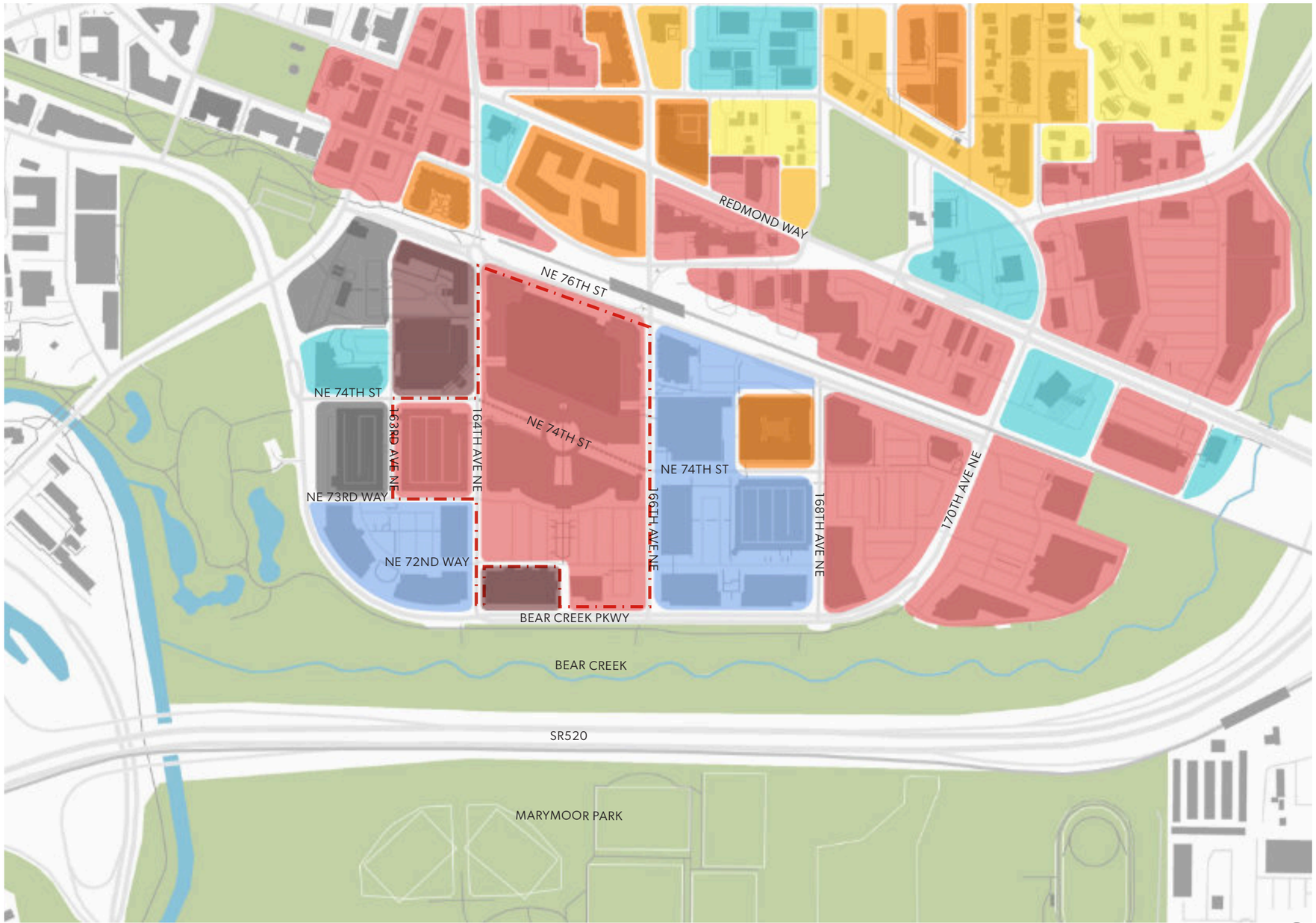
LEGEND

- PROJECT BOUNDARY
- LIGHT RAIL
- LIGHT RAIL STATION
- SR520
- EXISTING MULTI-USE TRAIL (PAVED)
- EXISTING BIKE LANES
- WALK RADIUS
- LIGHT RAIL STATION
- BUS STOP

EXISTING PEDESTRIAN AND BIKE ANALYSIS MAP

NTS

ADJACENT LAND USE MAP

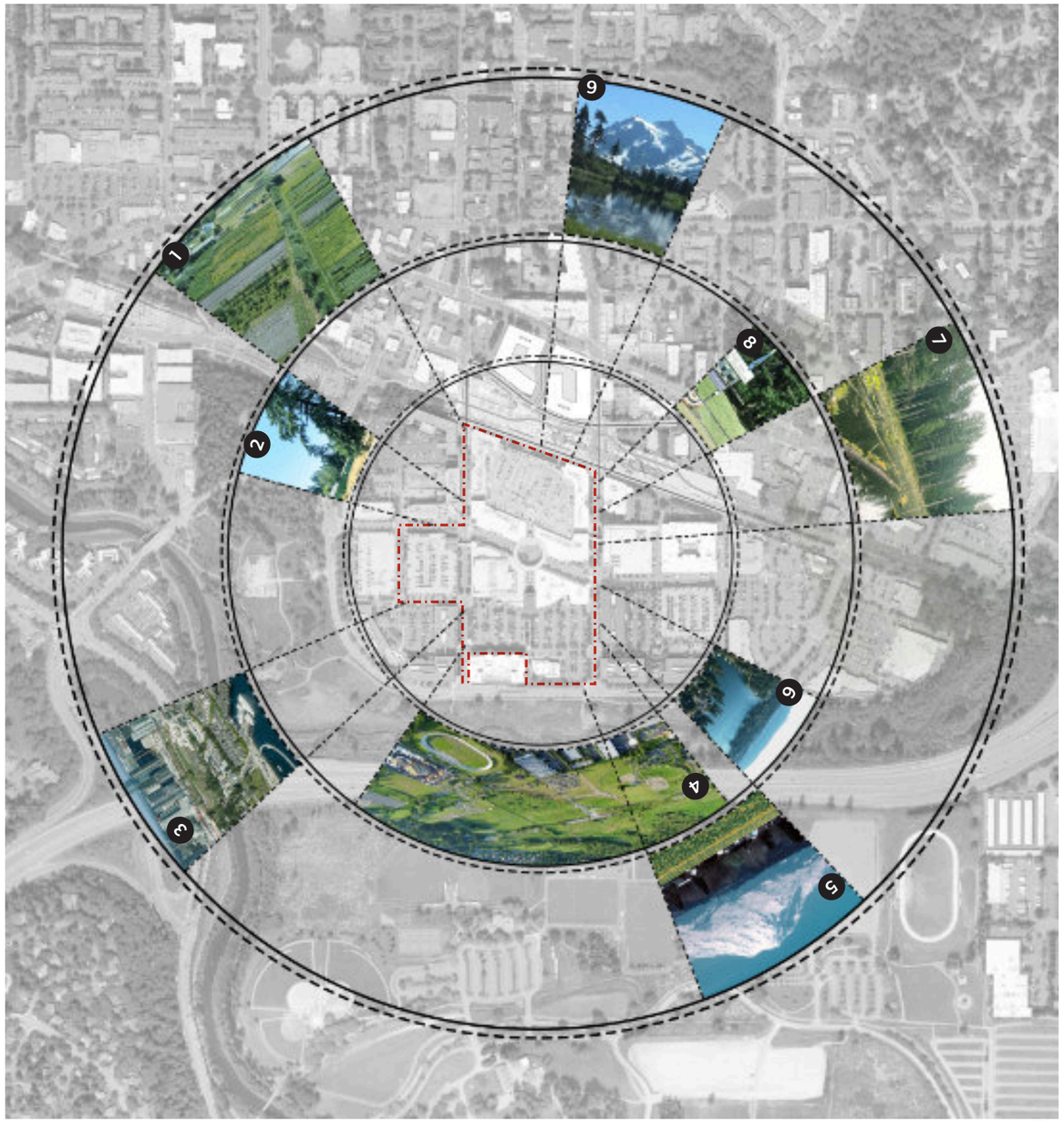


LEGEND

- PROJECT BOUNDARY
- OFFICE
- RESIDENTIAL (SINGLE FAMILY, LOW DENSITY)
- RESIDENTIAL (MULTI FAMILY, MEDIUM & HIGH DENSITY)
- RESIDENTIAL MIXED-USE
- RETAIL
- PUBLIC INSTITUTION (SCHOOL, BANK, ETC.)
- HOTEL/ HOSPITALITY
- PARK AND OPEN SPACE
- PARKING

ADJACENT LAND USE MAP
NTS

VIEW CORRIDOR



VIEW CORRIDOR MAP

NTS

Sammamish Valley

Heron Rookery Park

Downtown Bellevue

Marymoor Park

Mount Rainier

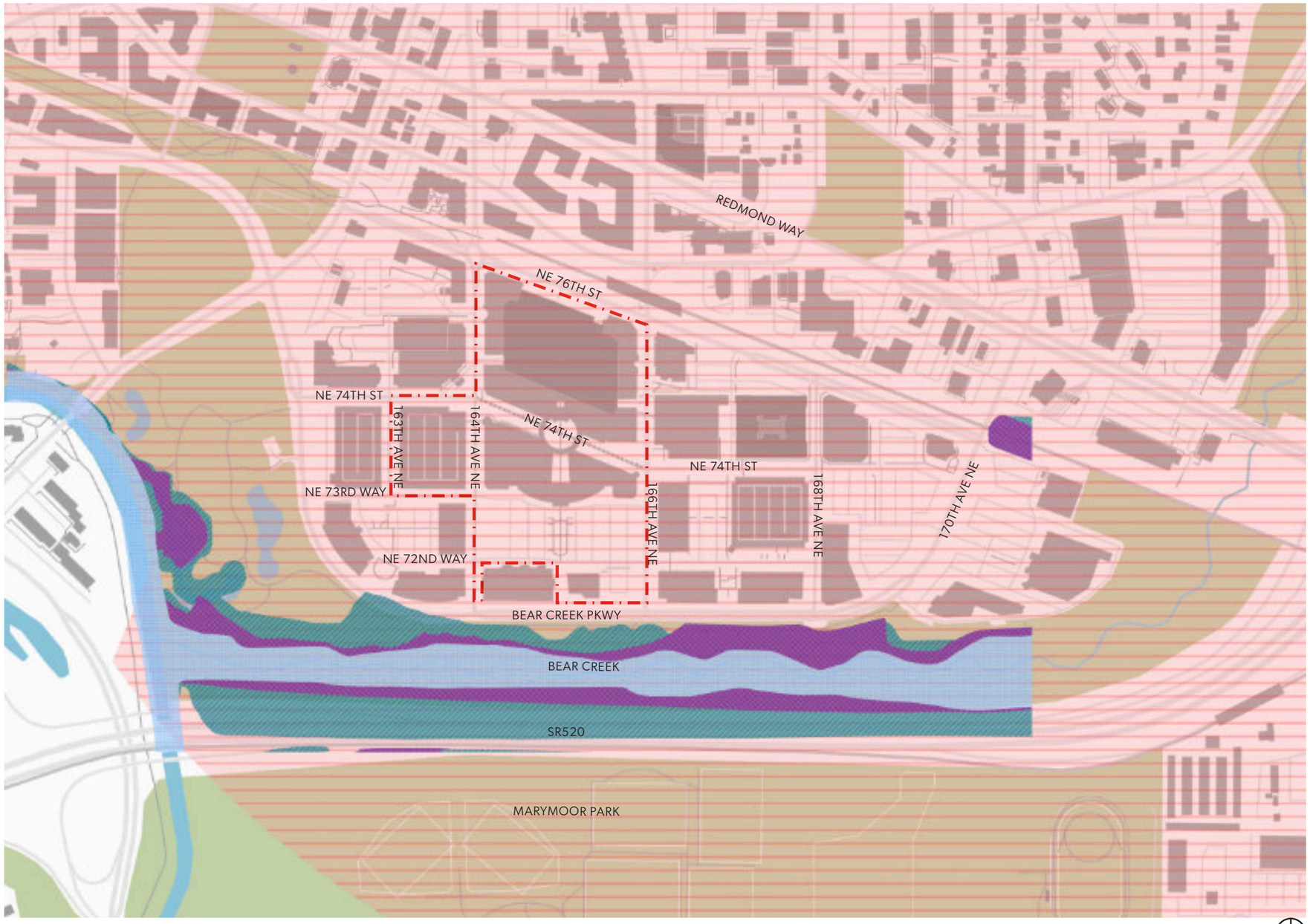
Lake Sammamish

Redmond Watershed Preserve

Hartman Park

Mount Baker

CRITICAL AREA PLAN

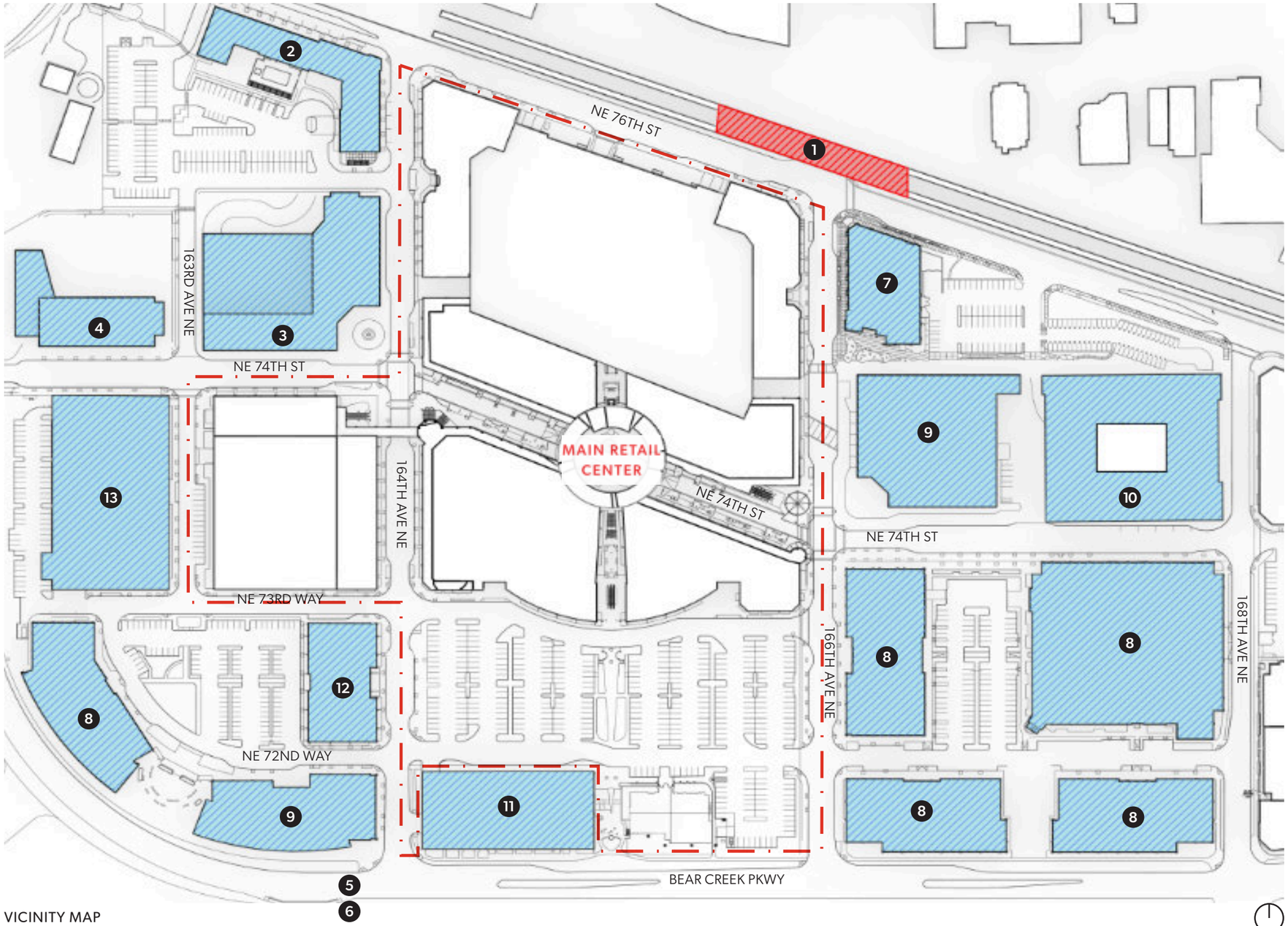


LEGEND

- PROPERTY LINE
- ZONE X - 0.2% ANNUAL CHANCE FLOOD HAZARD
- ZONE AE - 1% ANNUAL CHANCE FLOOD HAZARD
- ZONE AE - REGULATORY FLOODWAY
- CARA I

CRITICAL AREA PLAN
NTS

SITE CONTEXT PLAN



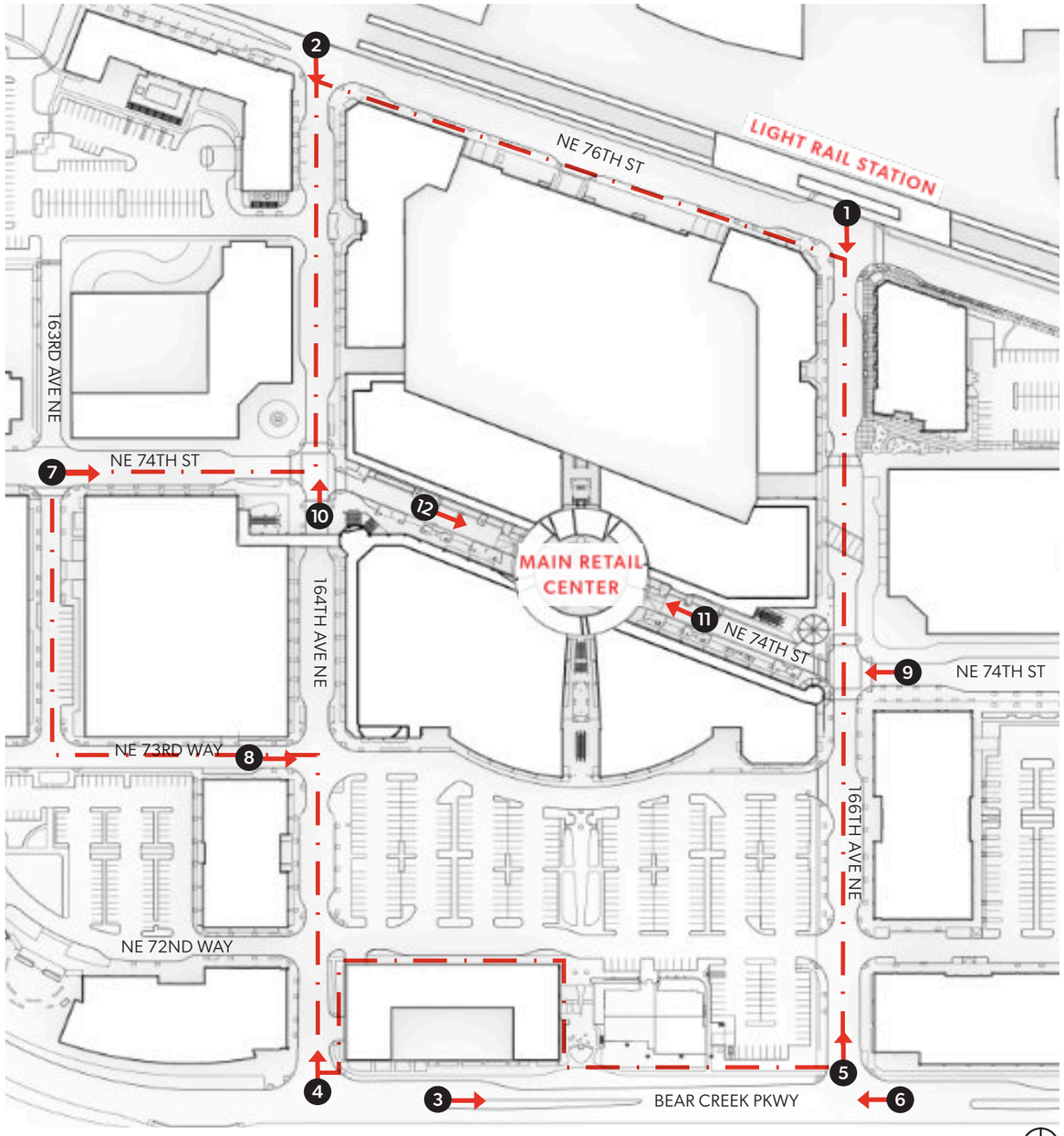
VICINITY MAP

NTS

LEGEND

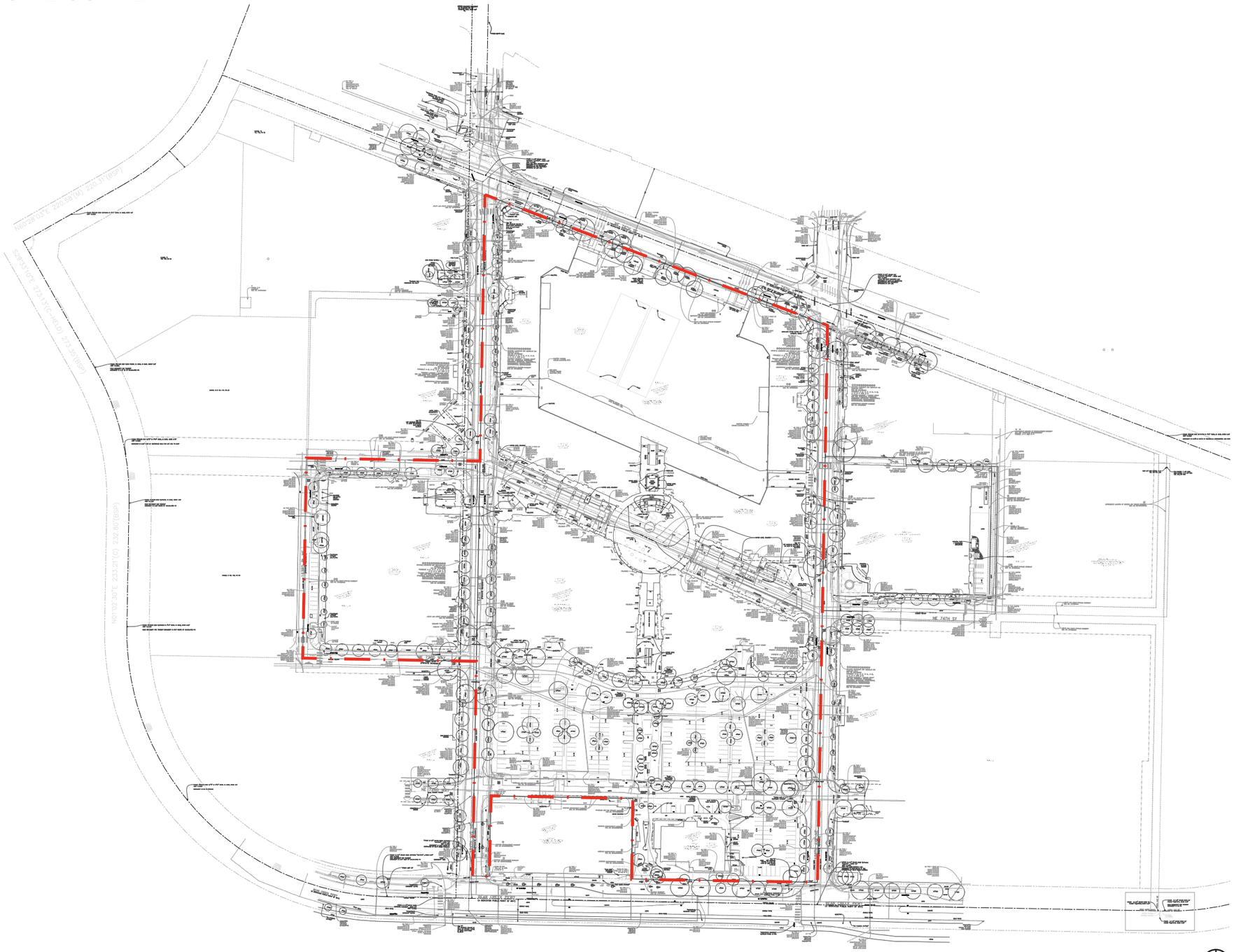
- PROJECT BOUNDARY
1. LIGHT RAIL STATION
2. RESIDENCE INN BY MARRIOTT SEATTLE
3. SEATTLE MARRIOTT REDMOND
4. LAKE WASHINGTON SCHOOL DISTRICT
5. BEAR CREEK PARKWAY
6. BEAR CREEK TRAIL
7. VOLKSWAGEN OFFICE
8. MICROSOFT OFFICE
9. AMAZON OFFICE
10. TALISMAN MULTIFAMILY BUILDING
11. ARCHER HOTEL
12. AT&T CORPORATE OFFICE
13. PARKING GARAGE

EXISTING TOWN CENTER



VICINITY MAP
NTS

SITE SURVEY



SITE SURVEY
0' 100' 200'

SITE ADDRESS:

7530 164TH AVE NE
7345 164TH AVE NE
7330 164TH AVE NE
7211 166TH AVE NE
REDMOND, WA 98052

TAX ACCOUNT NOS:

720241-0010-00
720241-0010-91
720241-0020-08
720241-0050-01

ZONING:

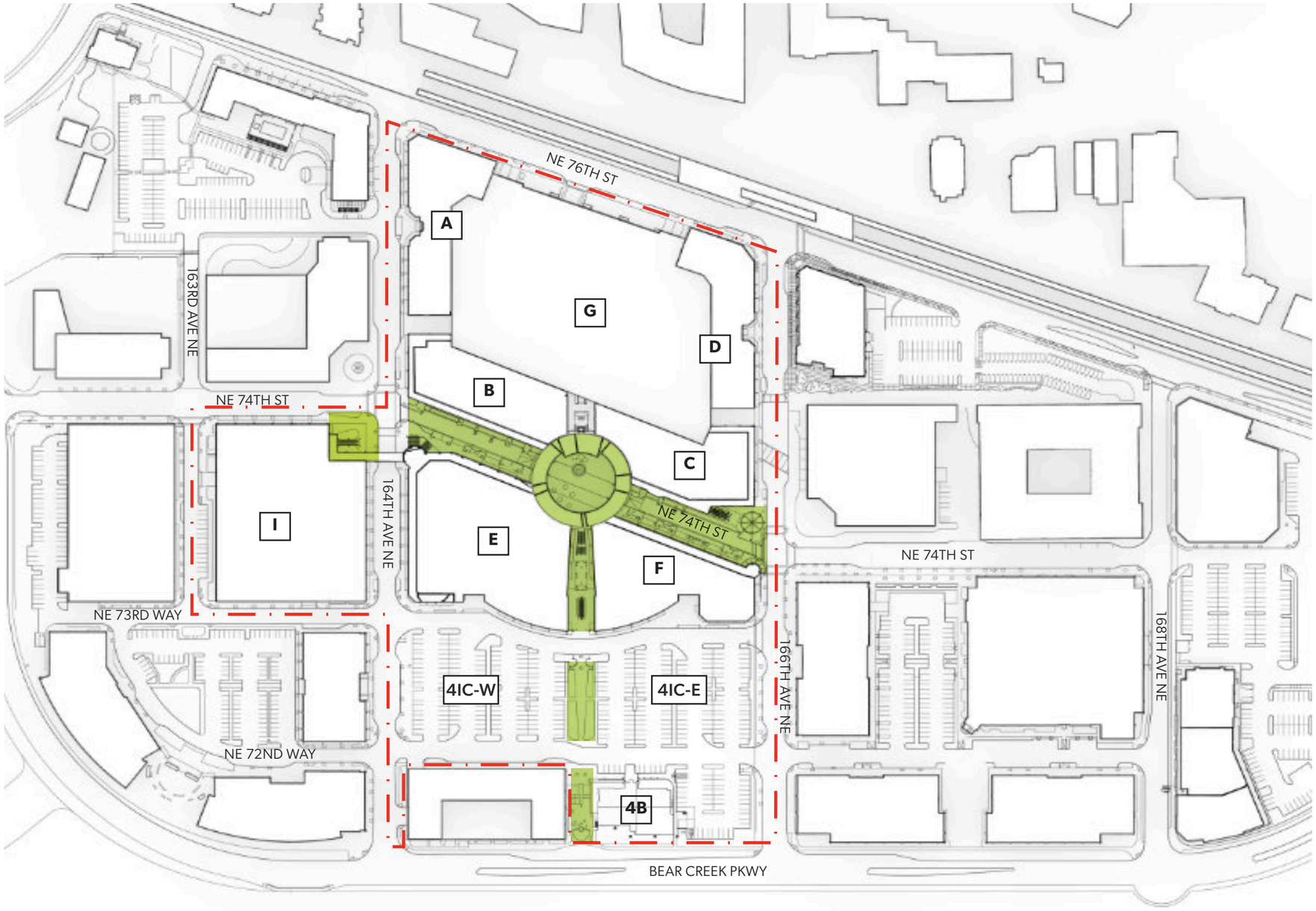
TWNC - TOWN CENTER NEIGHBORHOOD COMMERCIAL

AREA:

PARCEL 1-A AS SHOWN CONTAINS 338,510 SQUARE FEET OR 7.7711 ACRES, MORE OR LESS.
PARCEL 1-B AS SHOWN CONTAINS 123,429 SQUARE FEET OR 2.8335 ACRES, MORE OR LESS.
PARCEL 1-C AS SHOWN CONTAINS 362,023 SQUARE FEET OR 8.3109 ACRES, MORE OR LESS.
PARCEL 1-E AS SHOWN CONTAINS 18,409 SQUARE FEET OR 0.4226 ACRES, MORE OR LESS.

TOTAL SITE AREA: 842,371 SQUARE FEET (19.34 ACRES)

EXISTING PROJECT DATA SUMMARY



EXISTING MASTERPLAN
NTS

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- EXISTING GROUND LEVEL PUBLIC OPEN SPACE

BLDG	COMMERCIAL GROSS AREA SQ FT	
BLDG A	LEVEL 1	23,451 SF
	LEVEL 2	24,348 SF
	TOTAL	47,799 SF
BLDG B	LEVEL 1	25,095 SF
	LEVEL 2	22,928 SF
	TOTAL	48,023 SF
BLDG C	LEVEL 1	23,885 SF
	LEVEL 2	22,243 SF
	TOTAL	46,128 SF
BLDG D	LEVEL 1	20,264 SF
	LEVEL 2	21,023 SF
	TOTAL	41,287 SF
BLDG E	LEVEL 1	59,872 SF
	LEVEL 2	54,844 SF
	TOTAL	114,716 SF
BLDG F	LEVEL 1	31,380 SF
	LEVEL 2	29,464 SF
	TOTAL	60,844 SF
BLDG G	LEVEL 1	0 SF (No Commercial)
BLDG I	LEVEL 1	26,458 SF
BLDG 4B	LEVEL 1	8,738 SF
	TOTAL	393,993 SF

PEDESTRIAN GENERATING USE SUMMARY

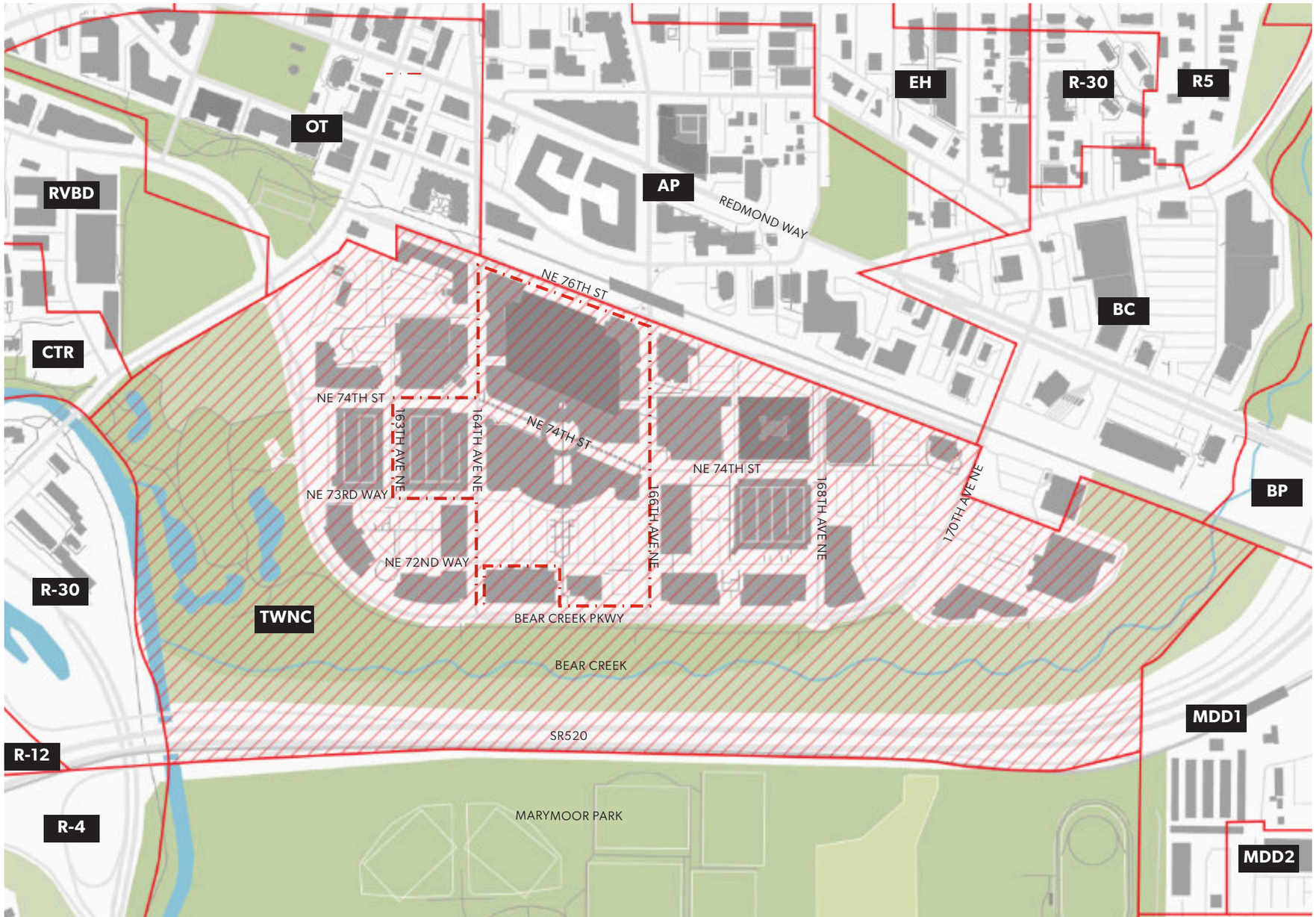
BUILDING		NON-PEDESTRIAN GENERATING LEASABLE SF	PEDESTRIAN GENERATING LEASABLE SF	TOTAL LEASABLE SF	% PEDESTRIAN GENERATING
BUILDING A	LEVEL 1	12,040	11,381	23,421	48.59%
	LEVEL 2	25,764	0	25,764	0.00%
	BUILDING TOTAL	37,804	11,381	49,185	23.14%
BUILDING B	LEVEL 1	0	25,210	25,210	100.00%
	LEVEL 2	5,526	18,208	23,734	76.72%
	BUILDING TOTAL	5,526	43,418	48,944	88.71%
BUILDING C	LEVEL 1	8,831	14,999	23,830	62.94%
	LEVEL 2	0	22,780	22,780	100.00%
	BUILDING TOTAL	8,831	37,779	46,610	81.05%
BUILDING D	LEVEL 1	0	20,264	20,264	100.00%
	LEVEL 2	19,695	0	19,695	0.00%
	BUILDING TOTAL	19,695	20,264	39,959	50.71%
BUILDING E	LEVEL 1	13,878	44,231	58,109	76.12%
	LEVEL 2	3,001	51,871	54,872	94.53%
	BUILDING TOTAL	16,879	96,102	112,981	85.06%
BUILDING 4B	LEVEL 1	0	8,738	8,738	100.00%
BUILDING F	LEVEL 1	11,082	21,742	32,824	66.24%
	LEVEL 2	6,992	20,387	27,379	74.46%
	BUILDING TOTAL	18,074	42,129	60,203	69.98%
BUILDING I	LEVEL 1	18,645	8,147	26,792	30.41%
EXISTING CENTER TOTAL		**125,454**	**267,958**	**393,412**	**68.11%**

DEVELOPMENT AGREEMENT MINIMUM PEDESTRIAN GENERATING USE TO BE MAINTAINED	**170,000**

NOTE:

1) The square footage areas in table above are based on current leaseable square footage, while the table on the previous page are based on early as-built drawing, which has lead to a slight discrepancy between the data.

TOWN CENTER ZONE



LEGEND

PROJECT BOUNDARY

ZONE BOUNDARY

TOWN CENTER ZONE MAP
NTS

ZONING SUMMARY

ZONING SUMMARY

GENERAL PROJECT INFO

ZONING: TOWN CENTER (TWNC)
OVERLAY: N/A
CRITICAL AREAS:
- 100 year Floodplain
- CARA Zone 1

EASEMENTS: SEE SURVEY
PARCELS: 720241-0010-00; 720241-0010-91; 720241-0020-08; 720241-0050-01
SITE AREA: 841,913SQUARE FEET (19.33 ACRES)

21.10.050 TOWN CENTER (TWNC) ZONE

A. PURPOSE:
Town Center is one of the City's primary gathering places. Its mix of shops and restaurants, offices, hotel rooms and conference facilities, and eventually residences in the heart of the City is intended to bring people together during the day and evening for planned or casual meetings. The design of the buildings, street patterns, and public plazas are modern yet reflect the historic district in adjacent Old Town. Improvements in walking connections between the two districts will help both areas thrive. The long-term vision for Town Center is that it will continue to develop as a major gathering and entertainment place within the community, that its trails will be connected to Marymoor Park by a grade-separated connection across SR 520, and that transit service to and from the center will provide a choice equal in attractiveness to automobiles, walking, and biking. The design and development of this zone seeks to ensure that development here integrates with and positively influences future redevelopment of the greater Downtown area, and retains traditional building styles, street patterns, variety of uses, and public amenities.

B. TABLE 21.10.050A: MAXIMUM DEVELOPMENT YIELD
- Height: 5 stories base; max 12 stories
- Max. Lot Coverage: 100 percent

C. TABLE 21.10.050B: REGULATIONS COMMON TO ALL USES
- Setbacks
  - Side Commercial: 0 feet
  - Rear Commercial: 0 feet
  - Side Residential: 0 feet
  - Rear Residential: 10 feet
- Other Standards
  - Min. Height: n/a
  - Max. Building Height without TDRS, GBP, or EAAH
    - Mixed-use area: 4 stories
    - Hotel and conference center: 8 stories
    - Other Hotel: 6 stories
    - Residential: 5 stories
    - With 2nd floor setbacks and bulk and mass mitigation: 6 stories
  - Max. Building Height with TDRS and GBP
    - TDRs: 1 additional floor
    - GBPs: 1 additional floor
    - Not more than 8 stories max
  - Max. Building Height with EAAH
    - 12 stories
  - Max. Height Within Shorelines
    - 35 feet
  - Max. Lot Coverage
    - 100 percent
  - Base FAR Without TDRs
    - Must retain or replace existing pedestrian generating and retail sales uses. Development may modify areas allocated to pedestrian generating and retail sales uses, subject to a minimum floor area to be negotiated as a condition to any Development Agreement.
  - Allowed Residential Density
    - Floor area for residential uses is exempt from TDR requirements. The ground floor level shall include a mix of pedestrian-oriented uses.

D. EXCEPTIONAL AMENITIES FOR ADDITIONAL HEIGHT
- Requirements:
  - Must be entirely located within the Town Center Mixed-Use subarea
  - A development agreement is required
  - A master plan is required
  - The City may require the applicant to pay for an independent technical review
- Limitations:
  - May not be used with TDRS or GBP to increase height.
  - Max. 12 stories
  - Max. 9 stories of usable floor area
  - Max. 3 additional stories above-grade parking with no more than one story of subterranean parking, and the following additional requirements are met:
    - .75 stalls per unit
    - 2 stalls per 1000 SF office / business
    - 3.5 stalls per 1000 SF retail / food and bev
    - Must be fully dedicated stalls
    - May replace displaced existing retail parking
  - Subterranean parking can only replace existing retail surface parking; limited to a max. 1 story below grade. Associated dewatering shall not create adverse impacts. A conceptual model including dewatering radius of influence will be submitted during site plan entitlement to demonstrate dewatering feasibility and no adverse impacts to City

Table 21.10.050C - Exceptional Amenities for Additional Height

	Priority Technique	Incentive
1	Affordable housing and larger units: • Min. 20% of units affordable at 60% AMI. There is no requirement to also provide 10% designated for 80% AMI that would ordinarily be required under RZC Chapter 21.20. And One of the following thresholds is met: • A. Min. 10% two bedrooms units and min. 5% three bedrooms. • B. The greater of 35% or 15 of affordable units have two bedrooms and the greater of 15% or 10 units have three bedrooms. And • All affordable units shall be electric-ready	4 Stories
2	Small and Local Businesses: 10% of new ground level commercial space or a total of 7,000 sf of total commercial space dedicated to local commercial.	1 story
3	Small and Local Businesses: The lesser of 25% or 4,000 sf of new commercial space no larger than 1,000 sf to encourage and support startup and new businesses.	1 story
4	Sustainable Development	
	A. ILFI Zero Energy certification or register and achieve verification through the New Buildings Institute (NBI) Zero Energy, or equivalent, for all new buildings.	3 stories (not combinable with options B, C, or D)
	B. 100% of the new buildings are ILFI Living Building Challenge (LBC) 4.0 certified, or equivalent.	2 stories (combinable with option C)
	C. Purchase green power for 100% of the new buildings for 5 years.	1 story (must be combined with either option B or option D)
	D. LEED Platinum, or equivalent, for all new buildings.	1 story (combinable with option C)

supply wells.
- Additional Height Requirements:
  - Techniques and incentives in Table 21.10.050C shall apply across the D.A. project limit.
  - Provide priority techniques first.
  - Each phase shall provide a proportionate installation of amenities and may not depend on future phases.
  - Sustainable development equivalent techniques shall be a condition of the D.A.
- Table 21.10.050C - Exceptional Amenities for Additional Height

E. GENERAL ALLOWED USES AND CROSS-REFERENCES
- As Shown in Table 21.10.050.1 and 21.10.050.1
- Proposed uses are classified as Permitted uses.

F. ALLOWED USES AND BASIC DEVELOPMENT STANDARDS
- Parking Requirements as Shown in Table 21.10.050D
  - 4 - Multifamily Residential
    - Min. 1 / unit; Max 2.25 / unit
    - Plus .25 spaces / unit for guest parking
    - Curbside parking can meet up to 25% of required
  - 8 - Retail Sales
    - Min. 3.5 / 1,000 gfa; Max 5 / 1,000 gsa
    - Min. 1 / unit; Max 2.25 / unit plus .25 spaces / unit for guest parking
  - Sit-down Restaurants
    - Min. 9 / 1,000 gsa; Max 9 / 1,000 gsa
  - Take-out Restaurants
    - Min. 10 / 1,000 gsa; Max 10 / 1,000 gsa

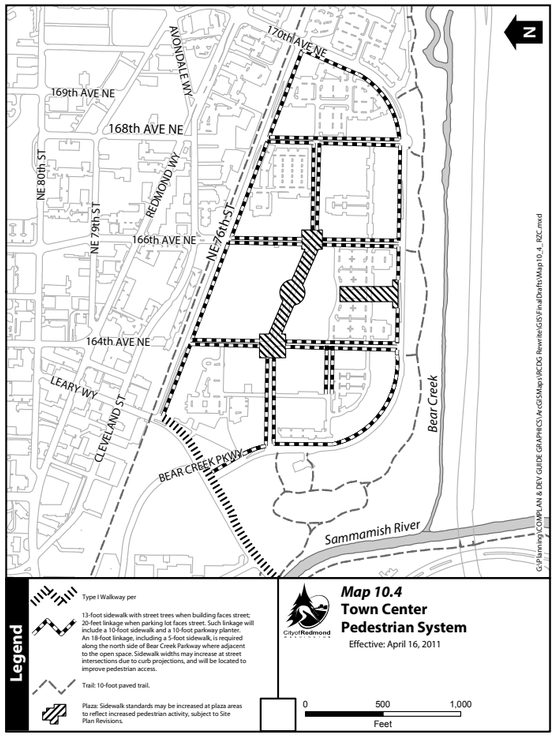
21.10.130 DOWNTOWN RESIDENTIAL SITE REQUIREMENTS

B. DOWNTOWN RESIDENTIAL DENSITIES TABLE 21.10.130A
- Min. Site Area per table
- Max. Dwelling Units per net acres
  - N/A - regulated by bulk, height, parking, open space, and other development standards.
    - Min. 1 / unit; Max 2.25 / unit
    - Plus .25 spaces / unit for guest parking
    - Curbside parking can meet up to 25% of required
- Max. Lot Coverage - N/A
  - 12,000 SF

C. RESIDENTIAL LOT COVERAGE
Not Applicable

D. RESIDENTIAL SETBACK REQUIREMENTS
Not Applicable

E. RESIDENTIAL USABLE OPEN SPACE
General - Provide residents a place, to relax, and/or recreate without the need to leave their building. Common open space includes: plazas, rooftop gardens, and recreation rooms.
- Common Usable Open Space
  - Min. 100 SF per unit
  - Max. 20% of the project site
- Size Requirements
  - 12' min. length and width
  - Min. 200 sf area
  - Min. 18' area width to be combined with pedestrian access paths



21.10.150 PEDESTRIAN SYSTEM

C. Pedestrian System Description

21.10.160 USING TRANSFER OF DEVELOPMENT RIGHTS

D. 1.25 MAXIMUM NONRESIDENTIAL FAR
- Additional Commercial FAR allowed by purchasing TDRs or with the FAR bonus under the Green Building Program (GBP)
- TDRs or compliance with the GBP is not required for residential floor area within the maximum building height
- Parking area is excluded is excluded from FAR

21.20.030 AFFORDABLE HOUSING GENERAL REQUIREMENTS AND INCENTIVES

- Min. 10 % of units to be affordable at 80% AMI
- 50% AMI Low-Cost Affordable units count as 2 Affordable units

21.40.10 VEHICLE PARKING STANDARDS

D. REQUIRED OFF-STREET PARKING
- Administrator may approve alternative minimum parking requirements for specific uses on specific.
- Parking Near Frequent Transit
  - Multifamily structures
    - Min. 0 / unit, Max 1 / unit
  - General Retail
    - Min. 0 / 1,000 gfa, Max 3 / 1,000 gfa
  - Business and Service
    - Min. 0 / 1,000 gfa, Max 3 / 1,000 gfa
  - Food and Beverage
    - Min. 0 / 1,000 gfa, Max 5 space / 1,000 gfa

21.40.20 BICYCLE PARKING REQUIREMENTS

TABLE 21.40.020 BICYCLE PARKING REQUIREMENTS
- Multifamily structures
  - Long Term 1 / unit
  - Short Term 1 / 20 units
- General sales and services
  - Long Term 1 / 12,000 sf gfa
  - Short Term 1 / 2,000 sf gfa
- Eating and drinking establishments
  - Long Term 1 / 12,000 sf gfa
  - Short Term 1 / 2,000 sf gfa
- Offices
  - Long Term 1 / 4,000 sf gfa
  - Short Term 1 / 40,000 sf gfa

21.62.020 DOWNTOWN DESIGN STANDARDS

D. CORNER LOTS - BUILDING DESIGN
- Encourage pedestrian activity
- Traditional Downtown "main street" character
- Orient pedestrian entrances toward the corner

E. OPEN SPACE
- Residential Usable Open Space - See 21.10.130
- On-Site Recreational Amenities
  - Irrigated planters with seating
  - At least one on-site amenity, such as a recreation room of 300 or more square feet

F. RESIDENTIAL STANDARDS
- Minimum Residential Courtyard Dimensions
  - 55' min. width
- If 50 % is open to the street, the area that is contiguous with the courtyard, in the setback area, can be counted as usable open space
- Residential Access Building
  - Orientation - ensure primary entry orientation toward the street or front yard and covered
  - Min. 8' wide
  - Connect to the pedestrian system
  - Locate ground floor units and ground floor foyers/ lobbies 2'-4' above adjoining pedestrian system grade
- Required Residential Facade Modulation
  - Street facades shall be modulated every 40'
  - 4' min. modulation depth, may be reduced to 2' with balconies
  - 5' min. modulation depth
    30' max. width
  - 120' max building width except for ground floor commercial portions
- Residential Parking and Access
  - Via alley or private streets is preferred
  - 20' min garage door setback from curb

I. TOWN CENTER ZONE
Emphasize uses along street frontages and sidewalk designs integrated into building architecture

- Design Criteria
  - Site buildings to enclose common space or provide enclosure to the street
  - Encourage varieties of shapes, angles, and reliefs in the upper stories of structures over four stories
  - Avoid large buildings and continuous flat facades
  - Ground floor - provide pedestrian interest and activity
  - Arcades, colonnades, and awnings are encouraged
  - Provide easy and open access to the external public areas or plazas
  - Scale of structures should relate to each other
  - Orient building entrances to the street
  - Uses should be oriented externally as well as internally
  - Buildings should abut the sidewalks on at least one side and orient the primary entrance toward the street
  - Outdoor pedestrian areas shall include special paving treatments, landscaping, and seating areas.
  - Encourage pedestrian circulation from the project to the Cleveland Street Retail area.
  - Link proposed development to walkways, trails, and bicycle systems in the surrounding area

21.72.080 TREE REPLACEMENT REQUIREMENTS

- A minimum 35% of significant trees shall be retained.
- Significant trees - replace by 1 new tree
- Landmark trees - replaced by 3 new trees
- Exceptions
  - No replacement required for hazardous, dead, diseased, injured, or declining trees
  -

PROPOSED EXCEPTIONAL AMENITIES FOR ADDITIONAL HEIGHT

The proposal intends to provide the following exceptional amenities to allow for an additional height increase beyond the baseline code height limit. The exceptional amenities and additional height increase would apply to all applicable development phases.

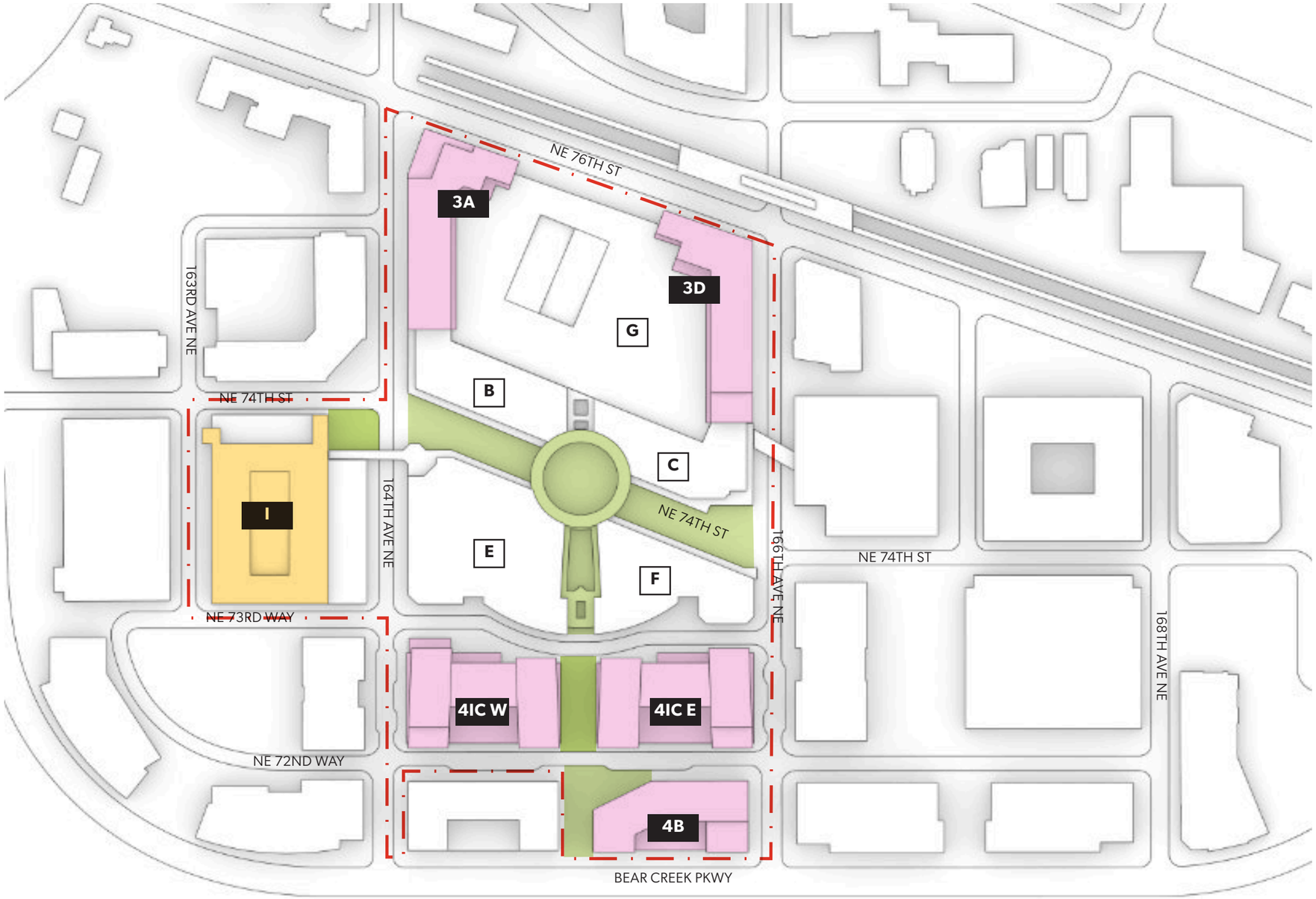
	TECHNIQUE	STORIES
	Allowable Base Height	5 Stories
1	Affordable housing and larger units: • Min. 20% of units affordable at 60% AMI. There is no requirement to also provide 10% designated for 80% AMI that would ordinarily be required under RZC Chapter 21.20. • A. Min. 10% two bedrooms units and min. 5% three bedrooms. • All affordable units shall be electric-ready	4 Stories
2	Small and Local Businesses: 10% of new ground level commercial space or a total of 7,000 sf of total commercial space dedicated to local commercial.	1 story
3	Small and Local Businesses: The lesser of 25% or 4,000 sf of new commercial space no larger than 1,000 sf to encourage and support startup and new businesses.	1 story
4	Sustainable Development	
	D. LEED Platinum, or equivalent, for all new buildings.	1 story
	Allowable Height with Incentives	12 stories

NOTES

- Specific equivalency compliance path to be determined at SPE application for each Phase.
- Alternative paths to be approved by the Director and will not require a revision to the MPD, See pp 10 of the D.A.

SECTION 2 - DESIGN CONCEPT

PROPOSED MASTERPLAN - ALL RESIDENTIAL OPTION



PROPOSED MASTERPLAN
NTS

LEGEND

- PROPOSED MPD BOUNDARY
  SITE AREA: 934,915 SQUARE FEET OR 21,4627 ACRES
- **3A** NEW BUILDING 3A
  - 7 STORY MIXED-USE RESIDENTIAL
- **3D** NEW BUILDING 3D
  - 7 STORY MIXED-USE RESIDENTIAL
- **4IC** NEW BUILDINGS 4IC
  - TWO NEW 12 STORY MIXED-USE RESIDENTIAL
  OR
  - (1) 12 STORY MIXED-USE RESIDENTIAL AND (1) 12 STORY MIXED-USE OFFICE
- **4B** NEW BUILDING 4B
  - 7 STORY RESIDENTIAL
- **I** EXISTING I GARAGE ADDITION
  - 2 STORY ADDITION TO EXISTING 2 STORY PARKING GARAGE
  74TH STREET
  - FUTURE STREET AND PLAZA IMPROVEMENTS
- NEW BUILDINGS ADDED OR MODIFIED
- **#** EXISTING BUILDINGS
- NEW/MODIFIED GROUND LEVEL PUBLIC OPEN SPACE

Exhibit C

BUILDING DATA MATRIX AND UNIT TYPE

DEVELOPMENT AREA NOTES:

- Square Footage and Unit Count numbers in this table below are approximate and based on conceptual level of design. Maximum "Not-To-Exceed" density shall apply to the metrics used in the Transportation Impact Analysis (TIA) for the project. TIA numbers took the below approximate figures, grossed up by 5 - 10%, and then rounded them to create a conservative estimate of the total development impact and allow for appropriate flexibility as design is completed. See table 1 and 2 of the TIA for analyzed assumptions.
- Pedestrian Generating and Retail Sales Uses are provided, per RZC Section 21.10.050B.
- New Mixed-use Residential buildings include a mix of Pedestrian Oriented Uses as depicted on the plans on page 15 of the MPD, and in the appendix.
- Unit Type and Counts are estimates only, and subject to change at SPE, subject to EAAH requirements and the maximum density thresholds established by this MPD and the TIA.
- Phasing may not be sequential per the numerical order as defined in the DA.

PHASE	BLDG	COMMERCIAL RETAIL	OFFICE		RESIDENTIAL			AMENITY	SERVICES	CIRC	TERRACE	TOTAL BLDG AREA	PARKING		
		AREA	LOBBY AREA	OFFICE AREA	UNITS	AREA	LEASING AREA	AREA	AREA	AREA	AREA	LESS PARKING AND TERRACE	STALLS	AREA	RESI/OFFICE RATIO
PHASE 01	I GARAGE	-	-	-	-	-	-	-	-	1,440	-	0	284	107,060	-
PHASE 02 ALL RESIDENTIAL OPTION	4IC - RESI (WEST)	11,820	-	-	252	201,350	2,570	11,020	21,720	44,020	12,060	292,500	189	86,320	0.75/UNIT
	4IC - RESI (EAST)	11,810	-	-	252	201,350	2,570	21,590	21,780	44,020	12,060	303,050	189	86,300	0.75/UNIT
PHASE 02 RESIDENTIAL AND OFFICE OPTION	4IC - OFFICE (WEST)	10,530	4,410	245,530	-	-	-	6,970	28,900	24,440	15,240	320,780	255	107,110	1.04/ 1,000 SF
	4IC - RESI (EAST)	11,810	-	-	252	201,350	2,570	21,590	21,780	44,020	12,060	303,050	189	86,300	0.75/UNIT
PHASE 03	4B - RESI	2,690	-	-	136	110,570	1,870	9,070	7,620	18,820	9,820	150,640	102	48,330	0.75/UNIT
PHASE 04	3A - RESI	16,070	-	-	148	119,830	1,530	7,340	9,360	21,340	6,860	175,470	110	28,090	0.74/UNIT
PHASE 05	3D - RESI	14,800	-	-	140	113,300	1,670	7,600	7,330	18,980	7,670	163,680	104	25,600	0.74/UNIT
TOTAL RESIDENTIAL OPTION		**57,190**	**-**	**-**	**928**	**746,400**	**10,210**	**56,620**	**67,810**	**148,620**	**48,470**	**1,072,930**	**978**	**381,700**	
TOTAL RESIDENTIAL AND OFFICE OPTION		**55,900**	**4,410**	**245,530**	**676**	**545,050**	**7,640**	**52,570**	**74,990**	**129,040**	**51,650**	**1,101,210**	**1,044**	**402,490**	

UNIT TYPE AND COUNT | ALL RESIDENTIAL OPTION

UNIT TYPE	4IC All RESI		4B		3A		3D	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
STUDIO/OPEN 1	174	34.5	46	33.8%	48	32.4%	47	33.6%
1 BED/1 BED+	228	45.2	62	45.6%	68	45.9%	65	46.4%
2 BEDS/2 BEDS+	72	14.3	19	14.0%	24	16.2%	20	14.3%
3 BEDS	30	6.0	9	6.6%	8	5.4%	8	5.7%
TOTAL	504	100%	136	100%	148	100%	140	100%

UNIT TYPE AND COUNT | RESIDENTIAL AND OFFICE OPTION

UNIT TYPE	4IC RESI+OFFICE		4B		3A		3D	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
STUDIO/OPEN 1	87	34.5	46	33.8%	48	32.4%	47	33.6%
1 BED/1 BED+	114	45.2	62	45.6%	68	45.9%	65	46.4%
2 BEDS/2 BEDS+	36	14.3%	19	14.0%	24	16.2%	20	14.3%
3 BEDS	15	6.0	9	6.6%	8	5.4%	8	5.7%
TOTAL	252	100%	136	100%	148	100%	140	100%

OPEN SPACE

GROUND LEVEL PUBLIC OPEN SPACE

PHASE	BLDG	EXISTING GROUND LEVEL PUBLIC OPEN SPACE	NEW/MODIFIED GROUND LEVEL PUBLIC OPEN SPACE
PHASE 01	I GARAGE	7,030 SF	0 SF
PHASE 02	4IC - RESI (WEST)	7,401 SF	20,566 SF
	4IC - RESI (EAST)	0 SF	0 SF
PHASE 03	4B - RESI	7,260 SF	11,510 SF
PHASE 04	3A - RESI	71,731 SF	71,731 SF
PHASE 05	3D - RESI	0 SF	0 SF
	TOTAL	**93,422 SF**	**103,807 SF**
			(10,385 SF and 11.1 % increase)

NOTE:

1) The ground level public open space for the Resi and Office options are the same.

2) See Spaces Highlighted on the Masterplan on Page 25.

MULTIFAMILY OPEN SPACE ACCESSIBLE ONLY TO BUILDING TENANTS

PHASE	BLDG	PROPOSED MULTIFAMILY OPEN SPACE
PHASE 01	I GARAGE	-
PHASE 02 ALL RESIDENTIAL OPTION	4IC - RESI (WEST)	23,080 SF
	4IC - RESI (EAST)	21,870 SF
PHASE 02 RESIDENTIAL AND OFFICE OPTION	4IC - OFFICE (WEST)	-
	4IC - RESI (EAST)	21,870 SF
PHASE 03	4B - RESI	18,890 SF
PHASE 04	3A - RESI	14,200 SF
PHASE 05	3D - RESI	15,270 SF

NOTE:

See Section 5 for Multi-family Open Space Areas.

MULTIFAMILY OPEN SPACE:

21.10.120.E.1.A

At least 100 square feet per residential unit of open space retail shall be provided, up to a maximum area of 20 percent of the site.

PARKING SUMMARY - FULL BUILD-OUT

PROPOSED ALL RESIDENTIAL SCHEME

AS IS COMMERCIAL RATIOS		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	393,993	

COMMERCIAL PARKING SUMMARY

TOTAL OWNED PARKING STALLS	1,914	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(505)	
NET DEDICATED PARKING	***1,409***	***3.58 / 1,000 SF***

PHASE 1 & 2 COMMERCIAL RATIOS - I GARAGE AND 4IC DEV		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	393,993	
SF COMMERCIAL ADDED	23,630	
NEW TOTAL COMMERCIAL SF	417,623	

COMMERCIAL PARKING SUMMARY

EXISTING TOTAL OWNED STALLS	1,914	
4-IC SURFACE STALLS REMOVED	(297)	
I GARAGE STALLS ADDED	284	
TOTAL OWNED PARKING STALLS	1,901	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(505)	
NET DEDICATED PARKING	***1,396***	***3.34 / 1000 SF***

PHASE 1 & 2 RESI RATIOS		
SUMMARY		
TOTAL RESI UNITS 4IC	504	
TOTAL PARKING COUNT (3 LEVELS ABOVE)	***378***	***.75 / UNIT***

PHASE 3 COMMERCIAL RATIOS - BJ'S LOT DEV		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	417,623	
NET SF COMMERCIAL ADDED	(6,048)	
NEW TOTAL COMMERCIAL SF	411,575	

COMMERCIAL PARKING SUMMARY

EXISTING TOTAL OWNED STALLS	1,901	
4-IC SURFACE STALLS REMOVED	(63)	
TOTAL OWNED PARKING STALLS	1,838	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(505)	
NET DEDICATED PARKING	***1,333***	***3.24 / 1000 SF***

PHASE 3 RESI RATIOS		
SUMMARY		
RESI UNITS 4IC	504	
RESI UNITS 4B	136	
TOTAL RESI UNITS	640	
4IC PARKING COUNT	***378***	***.75 / UNIT***
4B PARKING COUNT	***102***	***.75 / UNIT***
TOTAL PARKING COUNT	***480***	***.75 / UNIT***

PHASE 4 & 5 COMMERCIAL RATIOS - 3A & D RESI DEV		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	411,575	
NET SF COMMERCIAL ADDED	(58,216)	
NEW TOTAL COMMERCIAL SF	353,359	

COMMERCIAL PARKING SUMMARY

EXISTING TOTAL OWNED STALLS	1,838	
G GARAGE, LESS STALLS DEDICATED TO NEW RESIDENTIAL	(80)	
TOTAL OWNED PARKING STALLS (INCLUDES 70 EXISTING STALLS DEDICATED TO RESI)	1,758	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(575)	
NET DEDICATED PARKING	***1,183***	***3.35 / 1000 SF***

PHASE 4 & 5 RESI RATIOS		
SUMMARY		
RESI UNITS 4IC	504	
RESI UNITS 4B	136	
RESI UNITS 3A & 3D	288	
TOTAL RESI UNITS	928	
4IC PARKING COUNT	***378***	***.75/ UNIT***
4B PARKING COUNT	***102***	***.75/ UNIT***
3A & 3D PARKING COUNT	***214***	***.75/ UNIT***
TOTAL PARKING COUNT	***694***	***.75/ UNIT***

NOTES:

- Commercial Square Footage are approximate and will shift over time given changing BOMA standards, etc. See table 1 and 2 of the TIA for analyzed assumptions.
- Encumbered stalls are those that are dedicated per existing lease agreements.
- Parking figures are approximate and based on schematic level of design. Exact parking numbers may shift at SPE per the maximums established by the TIA, this Master Plan, and the Code.

ENCUMBRANCES FOOTNOTES:

- MSFT: 55 G Garage Stalls *(Operation and Easement Agreement Section 4.7)*
- LWSD: 97 I Garage Stalls *(LWSD Easement Agreement Recital #2)*
- Amazon: 183 I Garage Stalls *(First Amendment to Easement Agreement Section 1b)*
- Amazon: 73 G Garage Stalls *(First Amendment to Easement Agreement Section 1a) & (Second Amendment to Easement Agreement Section 1)*
- AT&T: 97 I Garage Stalls *(Operation and Easement Agreement Section 4.5)*

PARKING SUMMARY - FULL BUILD-OUT

PROPOSED RESIDENTIAL AND OFFICE SCHEME

AS IS COMMERCIAL RATIOS		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	393,993	

COMMERCIAL PARKING SUMMARY

TOTAL OWNED PARKING STALLS	1,914	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(505)	
NET DEDICATED PARKING	***1,409***	***3.58 / 1,000 SF***

PHASE 1 & 2 COMMERCIAL RATIOS - I GARAGE AND 4IC DEV		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	393,993	
SF COMMERCIAL ADDED	22,340	
NEW TOTAL COMMERCIAL SF	416,333	

COMMERCIAL PARKING SUMMARY

EXISTING TOTAL OWNED STALLS	1,914	
4-IC SURFACE STALLS REMOVED	(297)	
I GARAGE STALLS ADDED	284	
TOTAL OWNED PARKING STALLS	1,901	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(505)	
NET DEDICATED PARKING	***1,396***	***3.35 / 1,000 SF***

PHASE 1 & 2 OFFICE RATIOS		
SUMMARY		
TOTAL OFFICE SF	245,530	
RESI UNITS 4IC	252	
TOTAL RESI UNITS	252	
4IC OFFICE PARKING COUNT	***255***	***1.04 / 1,000 SF***
4IC RESI PARKING COUNT	***189***	***.75 / UNIT***

PHASE 3 COMMERCIAL RATIOS - BJ'S LOT DEV		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	416,333	
NET SF COMMERCIAL ADDED	(6,048)	
NEW TOTAL COMMERCIAL SF	410,285	

COMMERCIAL PARKING SUMMARY

EXISTING TOTAL OWNED STALLS	1,901	
4-IC SURFACE STALLS REMOVED	(63)	
TOTAL OWNED PARKING STALLS	1,838	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(505)	
NET DEDICATED PARKING	***1,333***	***3.25 / 1,000 SF***

PHASE 3 RESI AND OFFICE RATIOS		
SUMMARY		
TOTAL OFFICE SF	245,530	
RESI UNITS 4IC	252	
RESI UNITS 4B	136	
TOTAL RESI UNITS	388	
4IC OFFICE PARKING COUNT	***255***	***1.04 / 1,000 SF***
4IC RESI PARKING COUNT	***189***	***.75 / UNIT***
4B PARKING COUNT	***102***	***.75 / UNIT***

PHASE 4 & 5 COMMERCIAL RATIOS - 3A & D RESI DEV		
SUMMARY		
TOTAL EXISTING COMMERCIAL SF	410,285	
NET SF COMMERCIAL ADDED	(58,216)	
NEW TOTAL COMMERCIAL SF	352,069	

COMMERCIAL PARKING SUMMARY

EXISTING TOTAL OWNED STALLS	1,838	
G GARAGE, LESS STALLS DEDICATED TO NEW RESIDENTIAL	(80)	
TOTAL OWNED PARKING STALLS (INCLUDES 70 EXISTING STALLS DEDICATED TO RESI)	1,758	
LESS MSFT, LWSD, AMZN, ATT ENCUMBRANCES*	(575)	
NET DEDICATED PARKING	***1,183***	***3.36 / 1,000 SF***

PHASE 4 & 5 RESI AND OFFICE RATIOS		
SUMMARY		
TOTAL OFFICE SF	245,530	
RESI UNITS 4IC	252	
RESI UNITS 4B	136	
RESI UNITS 3A & 3D	288	
TOTAL RESI UNITS	676	
4IC OFFICE PARKING COUNT	***255***	***1.04 / 1,000 SF***
4IC RESI PARKING COUNT	***189***	***.75 / UNIT***
4B PARKING COUNT	***102***	***.75 / UNIT***
3A & 3D PARKING COUNT	***214***	***.74 / UNIT***

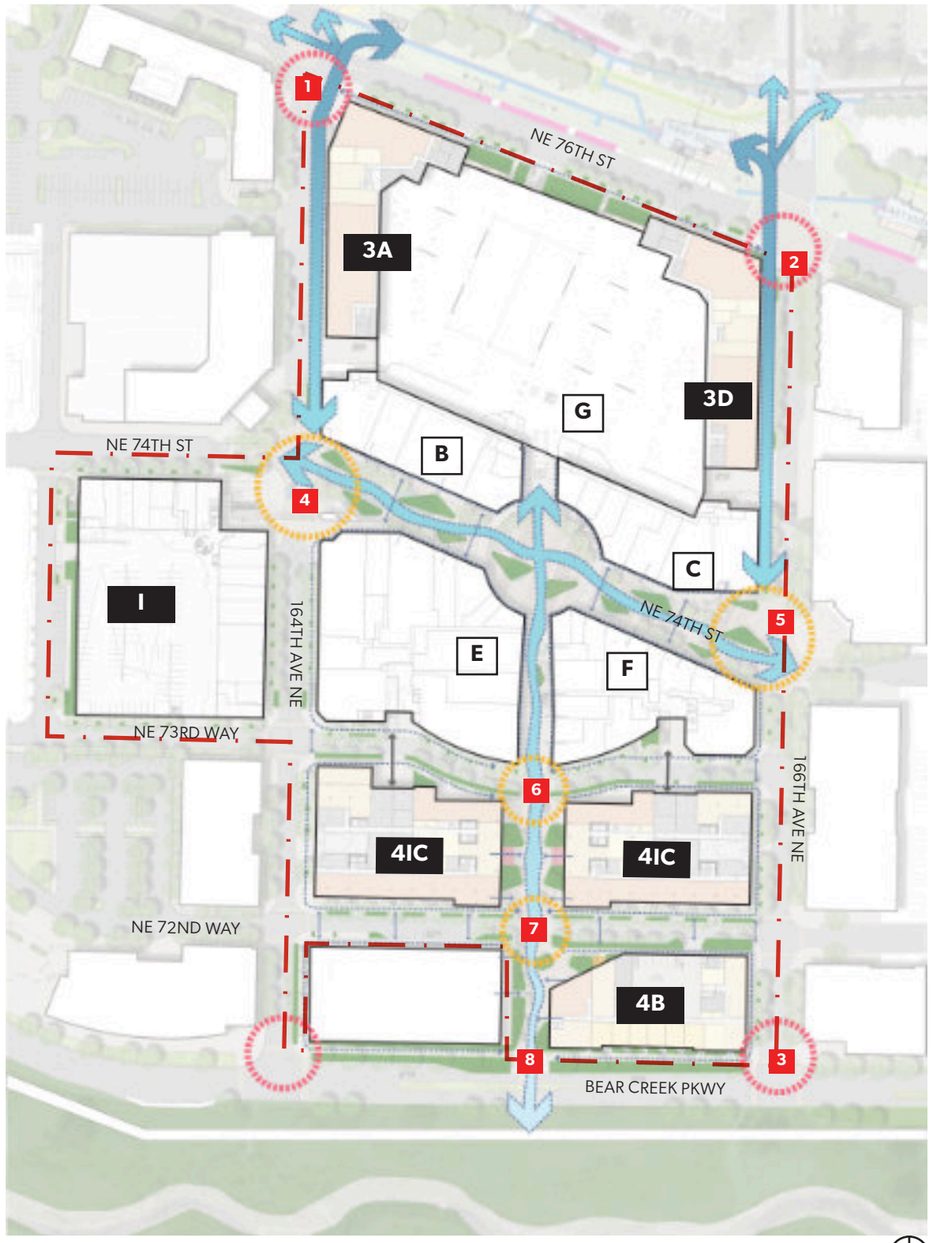
NOTES:

- Commercial Square Footage are approximate and will shift over time given changing BOMA standards, etc. See table 1 and 2 of the TIA for analyzed assumptions.
- Encumbered stalls are those that are dedicated per existing lease agreements.

ENCUMBRANCES FOOTNOTES:

- MSFT: 55 G Garage Stalls *(Operation and Easement Agreement Section 4.7)*
- LWSD: 97 I Garage Stalls *(LWSD Easement Agreement Recital #2)*
- Amazon: 183 I Garage Stalls *(First Amendment to Easement Agreement Section 1b)*
- Amazon: 73 G Garage Stalls *(First Amendment to Easement Agreement Section 1a) & (Second Amendment to Easement Agreement Section 1)*
- AT&T: 97 I Garage Stalls *(Operation and Easement Agreement Section 4.5)*

URBAN DESIGN DIAGRAM



OPEN SPACE DIAGRAM

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- AMENITY SPACE
- LOBBY ENTRY
- GREEN SPACE
- PEDESTRIAN CIRCULATION
- PEDESTRIAN ACCESS
- LOADING ZONE ALIGNMENT
- CENTRAL PEDESTRIAN PATHWAY
- VEHICLE AND PEDESTRIAN GATEWAY
- BICYCLE AND PEDESTRIAN GATEWAY
- 1 DOWNTOWN REDMOND GATEWAY
- 2 LIGHT RAIL STATION GATEWAY
- 3 BEAR CREEK PARKWAY GATEWAY - EAST
- 4 74TH PEDESTRIAN ZONE GATEWAY - WEST
- 5 74TH PEDESTRIAN ZONE GATEWAY - EAST
- 6 RETAIL GATEWAY
- 7 BEAR CREEK PARKWAY & 72ND WAY GATEWAY
- 8 BEAR CREEK PARKWAY GATEWAY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

Town Center Mixed Use Subarea Gateways

As described in the Downtown Design Standards, the project subarea should emphasize pedestrian connections similar to the Old Town Zone while providing a transition to the neighboring Bear Creek and adjacent office zones.

A primary design objective was to increase the porosity at site gateways to draw pedestrians into the site. Gateways 1 and 2 adjacency to Downtown and the Light Rail Station are the primary pedestrian entries and act as the site's front door. Gateways 3 and 8 provide improved multi-modal gateways while creating new connections to the existing Bear Creek Open Space.

The design team has identified key internal and external site gateways that are of special importance to the project design. Development at these gateways should celebrate the urban edge condition and incorporate Architectural and Landscape character guidelines as described in the following pages. In addition to the provided guidelines, precedent imagery identifies a vision for the character of these locations. While the final future design will differ some from the precedent imagery, it should reflect the character of the images along with the guidelines. The provided gateway design guidelines are intended to be used conjunction with the existing City of Redmond Design Guidelines. The development of these guidelines was a collaborative effort with City staff and the Design Review Board during the MPD review.

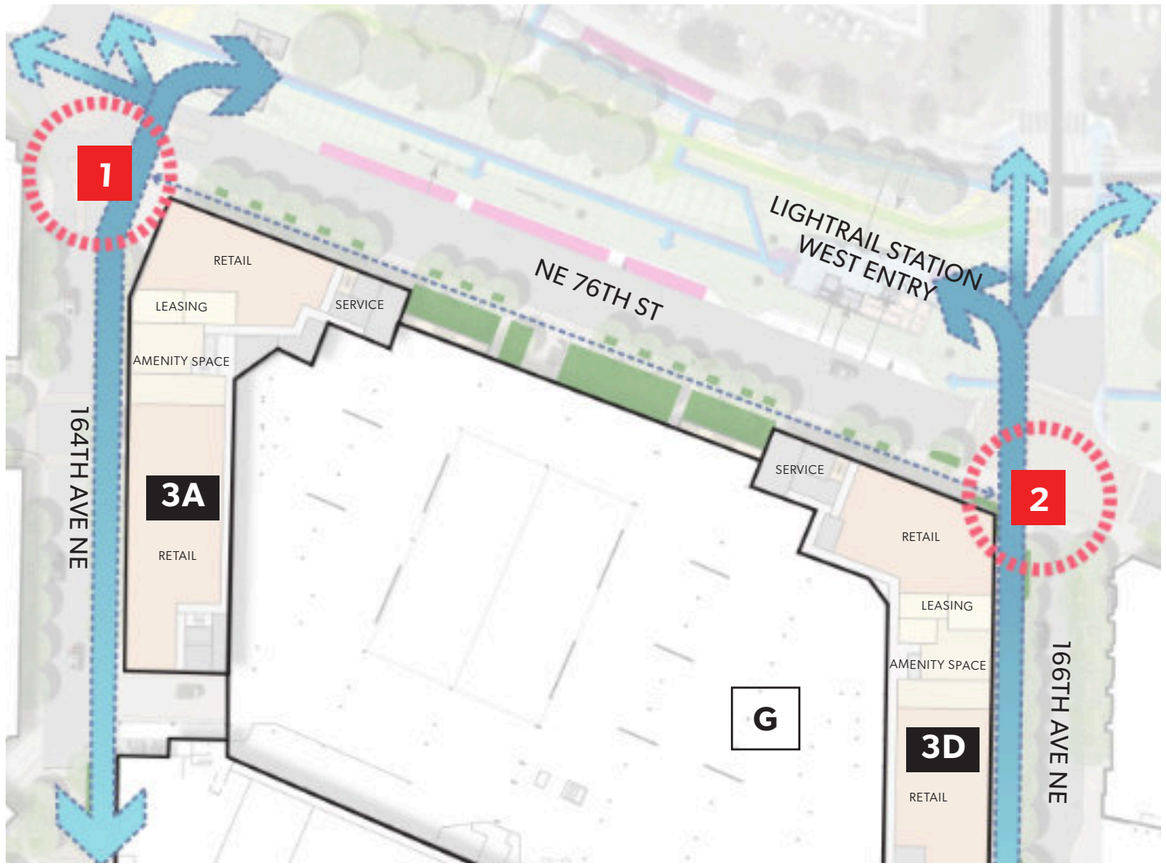
Creating open space connections is vital within the re-imagined Redmond Town Center. Safe and generous crossings at the new light rail access will serve a new influx of residents and visitors alike. Clear and defined bicycle circulation from Bear Creek Parkway into and around the site will provide easy access to all retail and residential frontages, as well as bike parking locations throughout. A defined central pedestrian spine will form a strong pathway into the heart of the retail core, while connecting to the entry and amenity spaces.

Proposed precedent imagery represents a design approach to showcase the movement of people, emphasize verticality, and create a playful active facade in place of horizontal concrete screening. While the final future design will differ some from the precedent imagery, it should reflect these goals.

The landscape design character throughout the site is intended to highlight the transition from urban at the north to more natural planting and landscape features as a visitor gets closer to Bear Creek.

NORTHERN MULTI-MODAL SITE ENTRY GATEWAYS

GATEWAY MAP



GATEWAY MAP
0' 50' 100'

NORTH 1 AND 2 GATEWAY

Most site visitors will approach and enter the site along the northern gateways either from downtown Redmond or from the new light rail station. These corner gateways create an urban edge and represent the primary front doors to Redmond Town Center. New table topped intersection improvements.

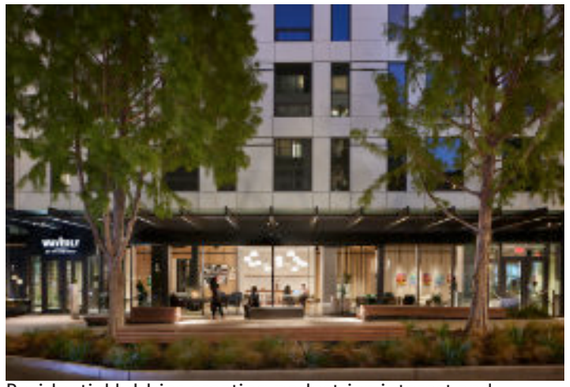
SUPPLEMENTAL DESIGN GUIDELINES

- Arrival - Entry for light rail passengers and from downtown;
- Prominent urban edge at street corner;
- Glazed storefront for ground level retail uses - encourage food and beverage tenants;
- Weather protection at face of building;
- Signage, lighting and potential art elements that enhance sense of arrival and site identity;
- Enhanced pedestrian crossing at Gateway 2;
- Bike lanes extend into site.
- Reinforce and celebrate the street corner by providing pedestrian entrances that orient toward the corner.

NOTE: Gateway design and precedent imagery intended to demonstrate design intent, not final design. Final design shall be included in SPE and shall meet the intent demonstrated in the above schematic design.

PRECEDENT IMAGES

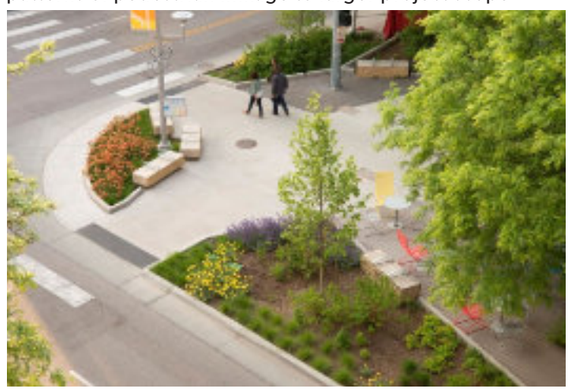
Activated Public Realm & Corner Retail



Residential lobbies creating pedestrian interest and contributing to experience of public realm

Overhead weather protection, street trees reinforced patterns of pedestrian linkage to larger project scope

Public Stair Works in concert with signage to create inviting frintage at 76th facade.



Landscape Buffer Planting at Intersection creates protected pedestrian space for retail

Food and Beverage Seating activates right of way areas

NORTHERN MULTI-MODAL SITE ENTRY GATEWAYS

GATEWAY 2 APPROACH, LOOKING SOUTH

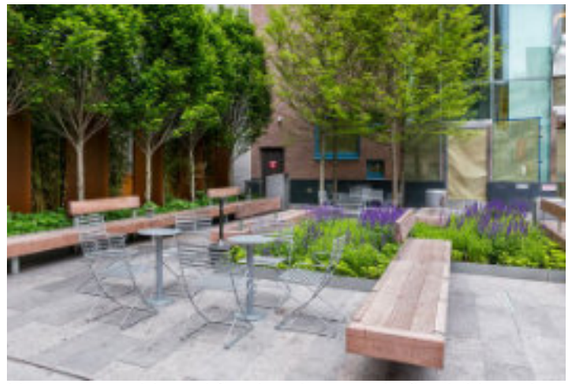
NOTE: Gateway design and precedent imagery intended to demonstrate design intent, not final design. Final design shall be included in SPE and shall meet the intent demonstrated in the above schematic design.

HARDSCAPE

Raised intersection promotes safe crossing and prioritizes pedestrians

Varied pavement creates dynamic spaces with integrated planting and lighting

FURNISHINGS



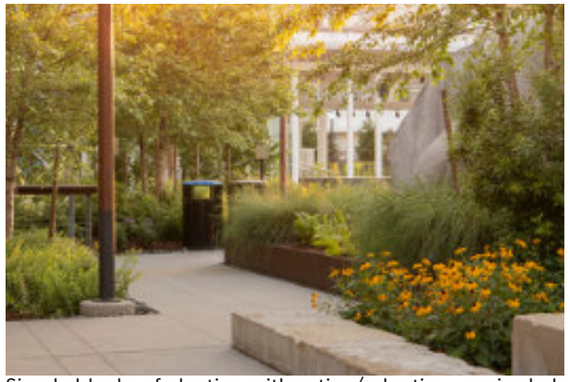
Mixing moveable and fixed seating create flexibility and variety of seating types.

Lining circulation spaces with seating and low level lighting helps to define space and clarify travel routes.

Flexible and bold furnishings create vibrant hubs for activity and gathering

PLANTING/ LIGHTING

Linear seating arrangements create strong edges and protect planting areas



Simple blocks of planting with native/adaptive species help lower maintenance needs

Sculptural pedestrian fixtures provides area lighting and create identity for urban spaces

SOUTHERN MULTI-MODAL SITE ENTRY GATEWAYS

GATEWAY MAP

GATEWAY MAP

0' 50' 100'

166TH AND BEAR CREEK

The new mixed-use residential building 4B replaces existing surface parking and holds the street corner to signify multi-modal entry form Bear Creek parkway. The gateway will need to relate to both the pedestrian at the ground level while also serving as a vertical focal point with visibility from Hwy 520.

SUPPLEMENTAL DESIGN GUIDELINES

- Arrival - Entry from Bear Creek Parkway/166th Avenue;
- Large glazing for visibility to ground level uses;
- Landscape edge condition/buffer at Bear Creek Parkway;
- Weather protection at building entries;
- Signage and lighting that enhance site identity, safety and connection to Bear Creek Parkway and Marymoor Park.

NOTE: Gateway design and precedent imagery intended to demonstrate design intent, not final design. Final design shall be included in SPE and shall meet the intent demonstrated in the above schematic design.

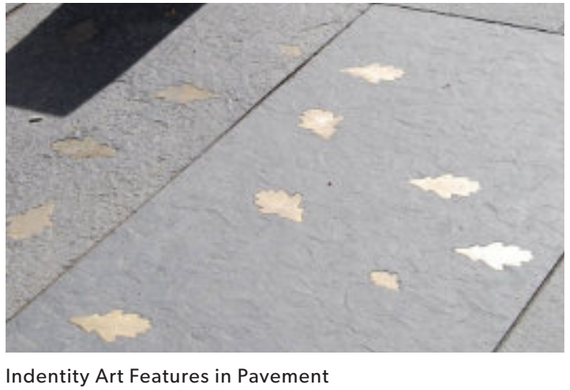
PRECEDENT IMAGES

Residential Lobby presence at corner

Transparency, residential lobby and amenity that engages with pedestrian realm

Overhead Weather Protection, Streetscape Planting

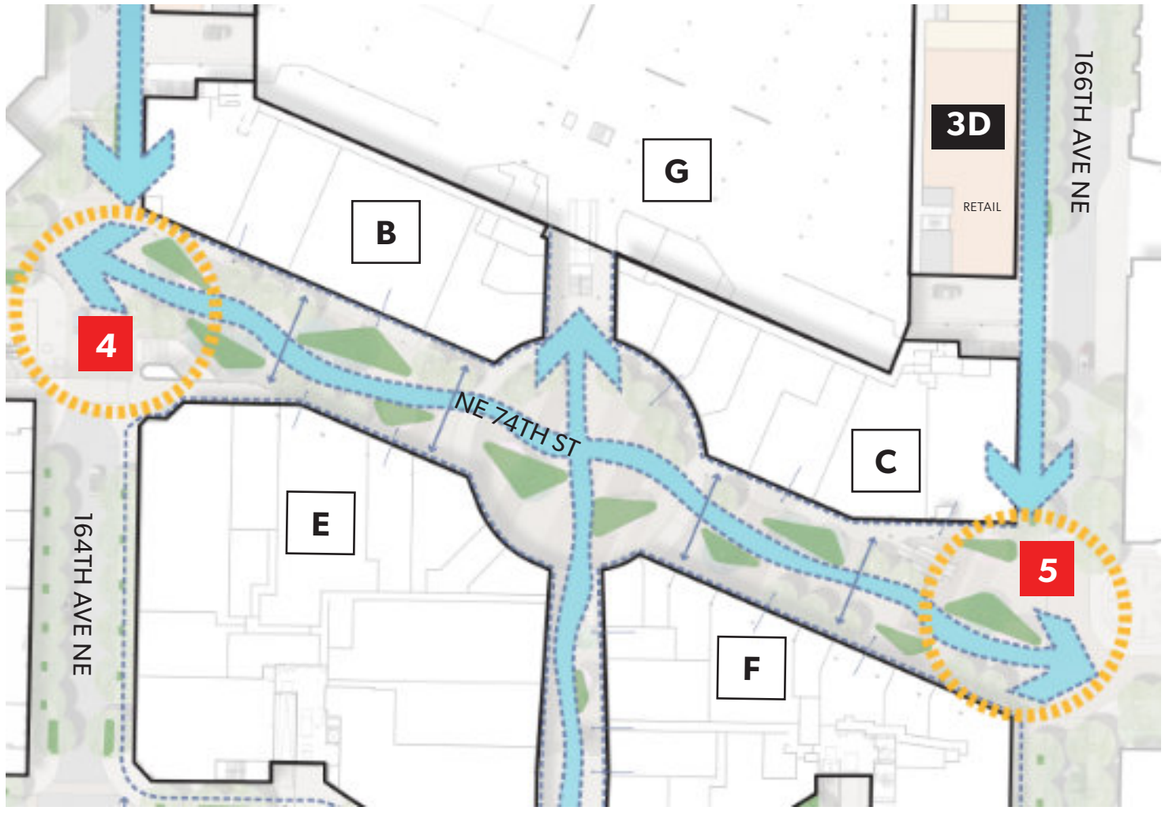
Native Planting Buffer at Bear Creek Parkway



Indentity Art Features in Pavement

74TH STREET GATEWAYS

GATEWAY MAP



GATEWAY MAP
0' 50' 100'

INTERNAL 74TH 5 AND 6 GATEWAY

Pedestrian focused streetscape and intersection improvements at 74th will pull the character of the pedestrian plaza across 164th and 166th to draw visitors into the heart of the site. The idea is to improve the visibility of 74th St from the northern gateways and signify the entry of a pedestrian first and vehicle second intersection.

SUPPLEMENTAL DESIGN GUIDELINES

- Entry to Pedestrian focus at NE 74th Street;
- Glazed storefront for ground level retail uses food and beverage tenants encouraged. Provide areas for potential outdoor dinning.
- Weather protection at building entrances;
- Signage, lighting and art elements that enhance site identity;
- Ground Level Planting and pavement patterns that limit the vehicular traffic and encourage pedestrian use. Table-topped intersections for traffic calming and enhanced pedestrian crossing;
- Visibility of vertical circulation;
- Pedestrian focused corridor - no vehicular use.

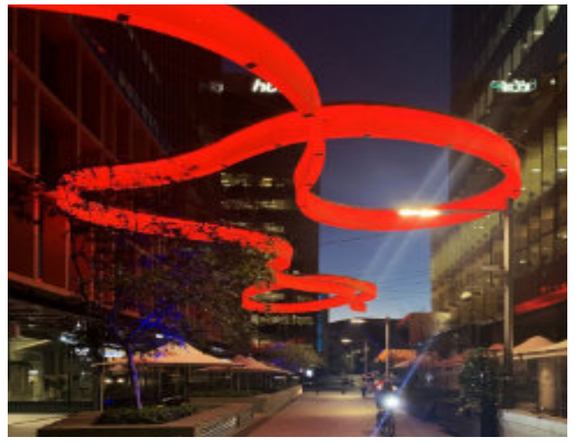
NOTE: Gateway design and precedent imagery intended to demonstrate design intent, not final design. Final design shall be included in SPE and shall meet the intent demonstrated in the above schematic design.

PRECEDENT IMAGES

Gateway 5: Vision for refreshed Retail Center, active pedestrian uses, enhanced landscape, public circulation

Landscape islands with integral seating help direct circulation and provide greenspace and respite.

Retail Seating to activate and create inviting atmosphere

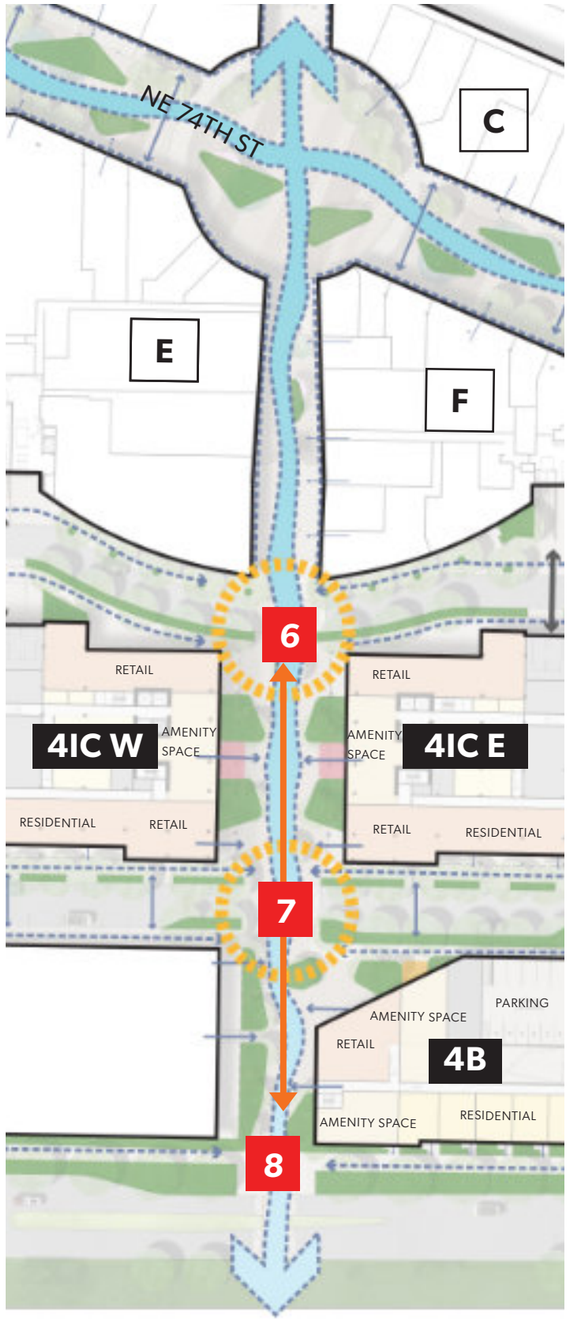


Sculptural lighting elements

Specialty Paving

INTERNAL PEDESTRIAN ORIENTED GATEWAYS

GATEWAY MAP



GATEWAY MAP

0' 50' 100'

PEDESTRIAN GATEWAYS

The internal north-south gateways are primarily pedestrian focused to extend the pedestrian only plazas across the internal private streets. The plaza and active frontages at each of these gateways act as stepping stones to provide interest and pull visitors through the site.

SUPPLEMENTAL DESIGN GUIDELINES

- North/ South Connection - focus on pedestrian-oriented uses;
- Extension of existing RTC Plaza Space at retail core. Building setback from sidewalk to provide shared public open space;
- Glazed storefront for ground level uses - retail proposed;
- Weather Protection at building entries;
- Signage, lighting and art elements that enhance site identity and pedestrian experience;
- Enhanced Planting mimicking natural systems and providing educational value;
- Pedestrian focused corridor - no vehicular use.

NOTE: Gateway design and precedent imagery intended to demonstrate design intent, not final design. Final design shall be included in SPE and shall meet the intent demonstrated in the above schematic design.

PRECEDENT IMAGES

Overhead weather protection. Ground floor activated by lobbies, retail and amenities

Enhanced plaza and planting with ample seating

Creative lighting that aids in safety and wayfinding

Enhance gather spaces with ample seating and art

Sprecialty paving that reinforces a sense of place

Shared multi-modal access within woonerf space

PROPOSED GROUND LEVEL

PROPOSED GROUND LEVEL - ALL RESIDENTIAL SCHEME

0' 100' 200'

PROPOSED GROUND LEVEL - RESIDENTIAL AND OFFICE SCHEME

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING
- PARKING ENTRY
- LOADING ENTRY
- PEDESTRIAN ENTRY
- COMMERCIAL
- COMMON RESI/OFFICE AMENITY
- RESIDENTIAL
- LEASING / MAIL
- CIRCULATION
- PARKING
- SERVICE
- OFFICE

PROPOSED LEVEL 2 - PARKING LEVEL

PROPOSED LEVEL 2 - ALL RESIDENTIAL SCHEME

0' 100' 200'

PROPOSED LEVEL 2 - RESIDENTIAL AND OFFICE SCHEME

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING
- COMMERCIAL
- COMMON RESI/OFFICE AMENITY
- RESIDENTIAL
- LEASING / MAIL
- CIRCULATION
- PARKING
- SERVICE

PROPOSED ROOF LEVEL

PROPOSED ROOF LEVEL - ALL RESIDENTIAL SCHEME

0' 100' 200'

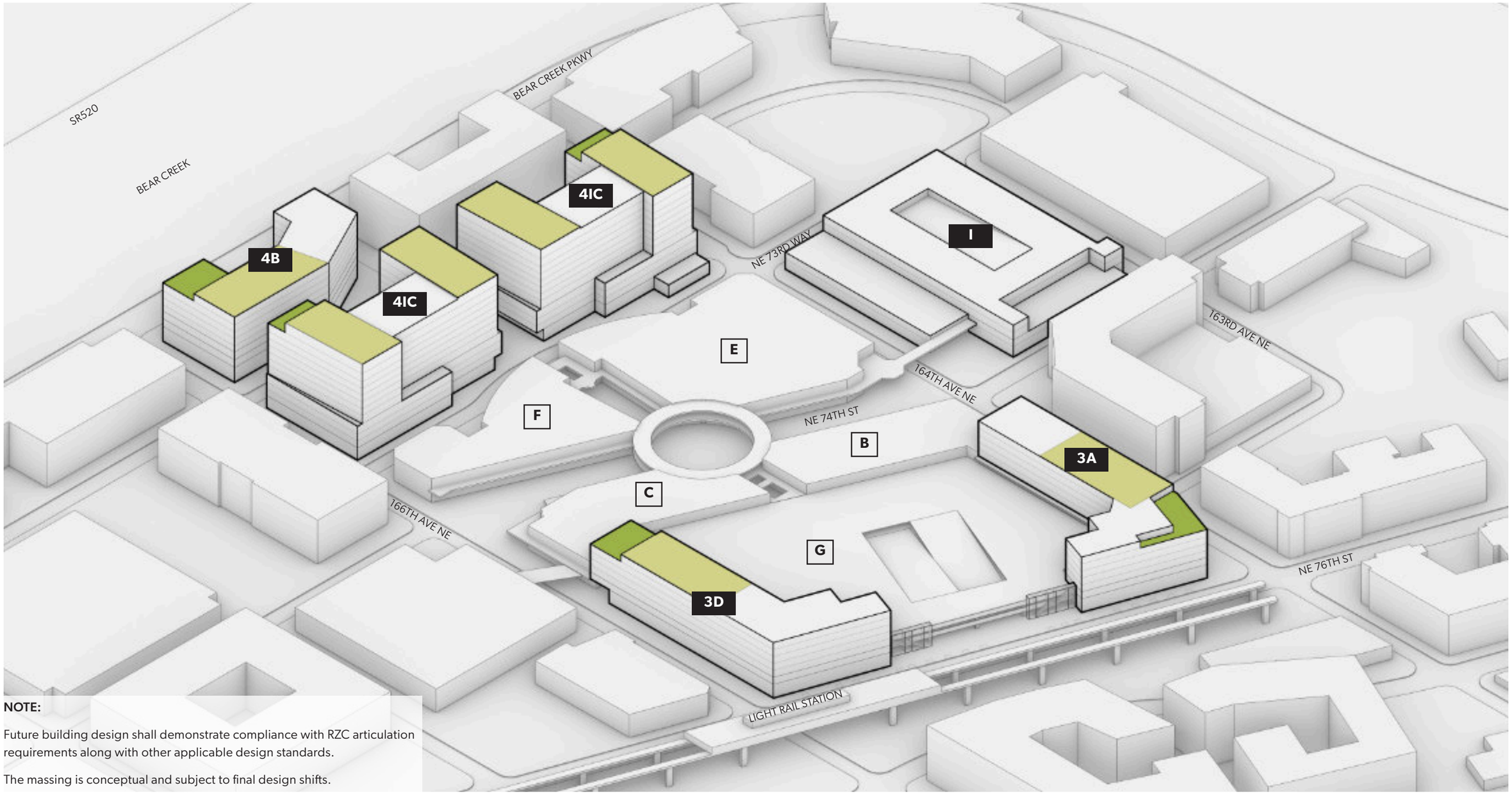
PROPOSED ROOF LEVEL - RESIDENTIAL AND OFFICE SCHEME

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING
- UNOCCUPIED GREEN ROOF
- BUILDING OPEN SPACE
- INTENDED NOT TO BE VEGETATED

OVERALL MASSING VIEWS - NORTHEAST PERSPECTIVE (4IC RESIDENTIAL SCHEME)



NOTE:

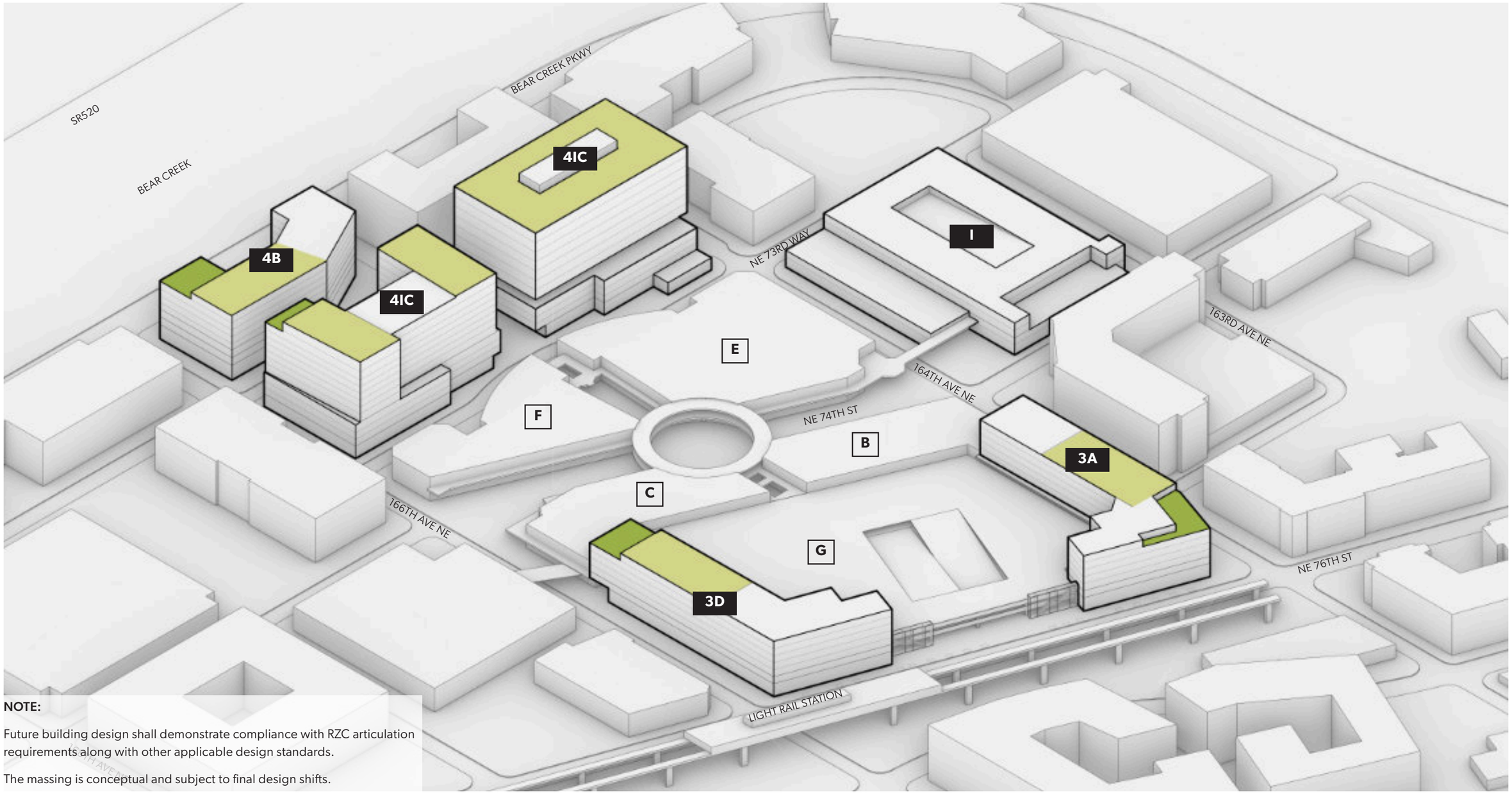
Future building design shall demonstrate compliance with RZC articulation requirements along with other applicable design standards.

The massing is conceptual and subject to final design shifts.

OVERALL MASSING VIEWS - NORTHEAST PERSPECTIVE (ALL RESIDENTIAL SCHEME)

NTS

OVERALL MASSING VIEWS - NORTHEAST PERSPECTIVE (4IC OFFICE SCHEME)



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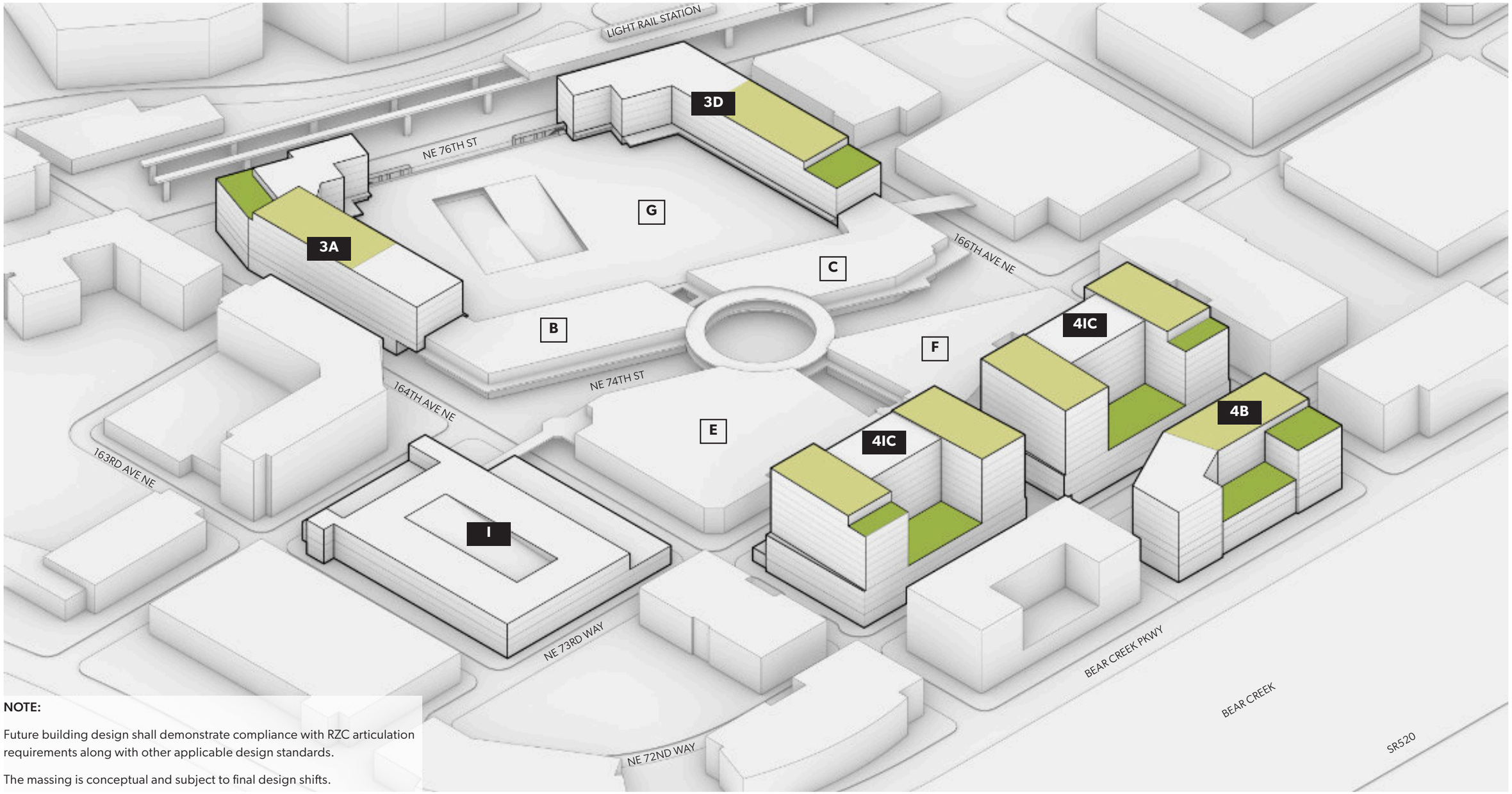
OVERALL MASSING VIEWS - NORTHEAST PERSPECTIVE (RESIDENTIAL AND OFFICE SCHEME)

NTS

OVERALL MASSING VIEWS - SOUTHWEST PERSPECTIVE (4IC RESIDENTIAL SCHEME)



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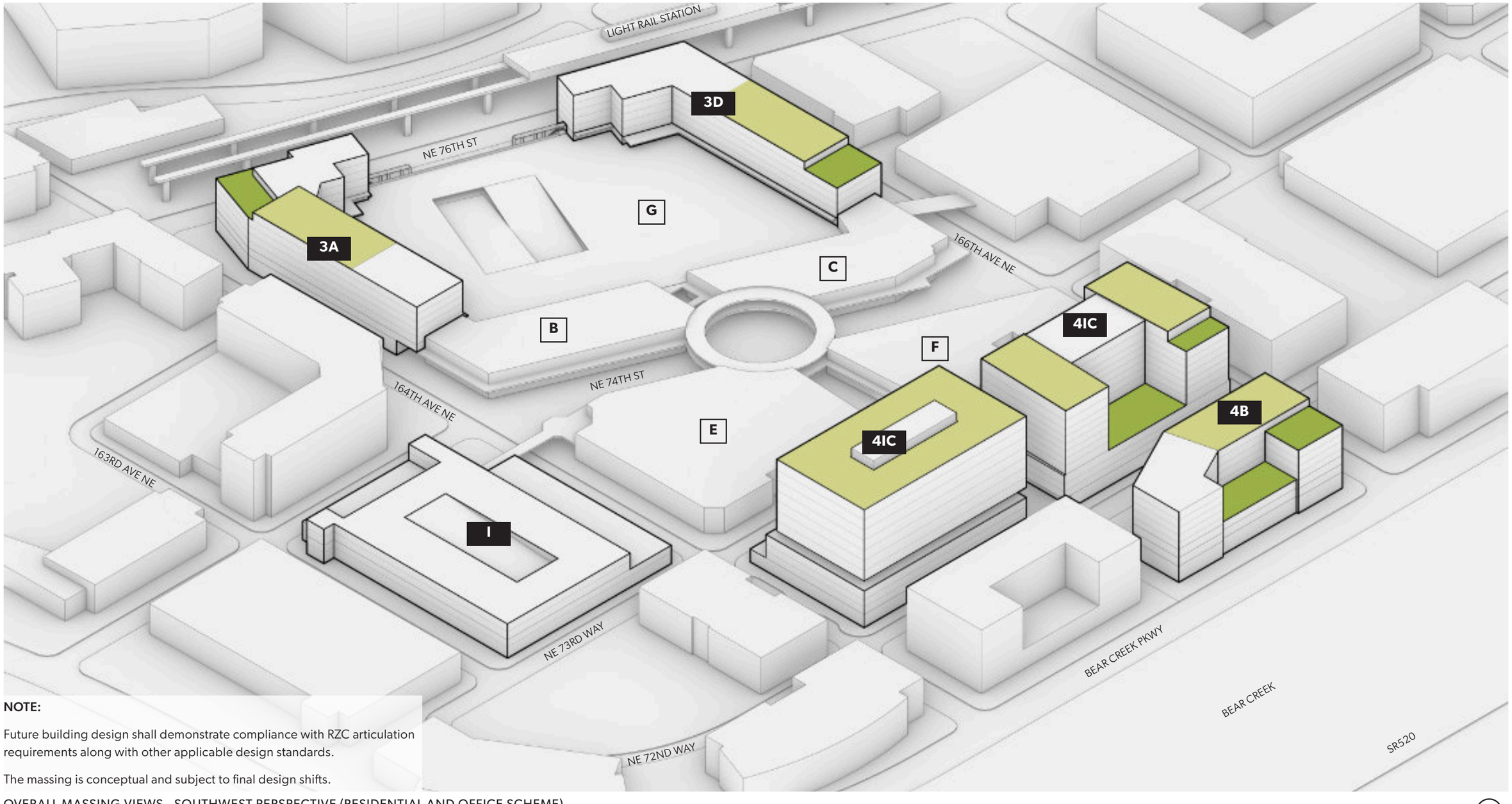
OVERALL MASSING VIEWS - SOUTHWEST PERSPECTIVE (ALL RESIDENTIAL SCHEME)

NTS

OVERALL MASSING VIEWS - SOUTHWEST PERSPECTIVE (4IC OFFICE SCHEME)



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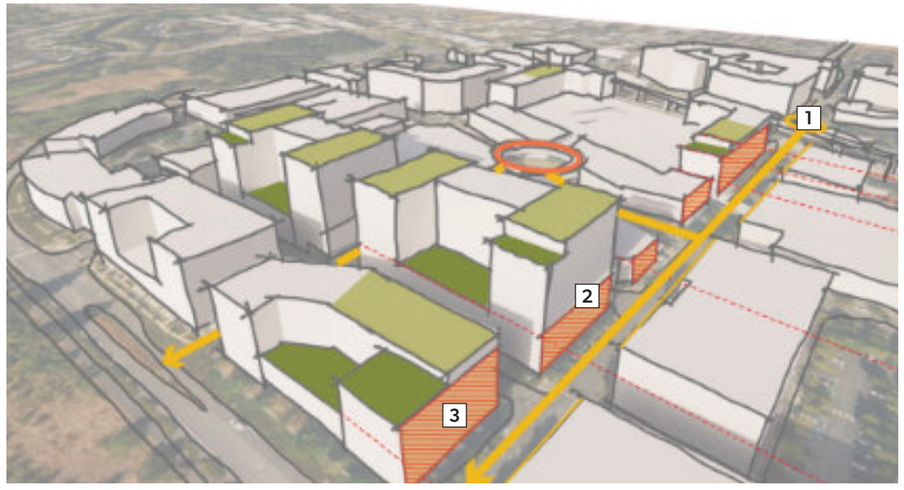
OVERALL MASSING VIEWS - SOUTHWEST PERSPECTIVE (RESIDENTIAL AND OFFICE SCHEME)

NTS

BULK AND SCALE DIAGRAMS (4IC ALL RESIDENTIAL SCHEME)



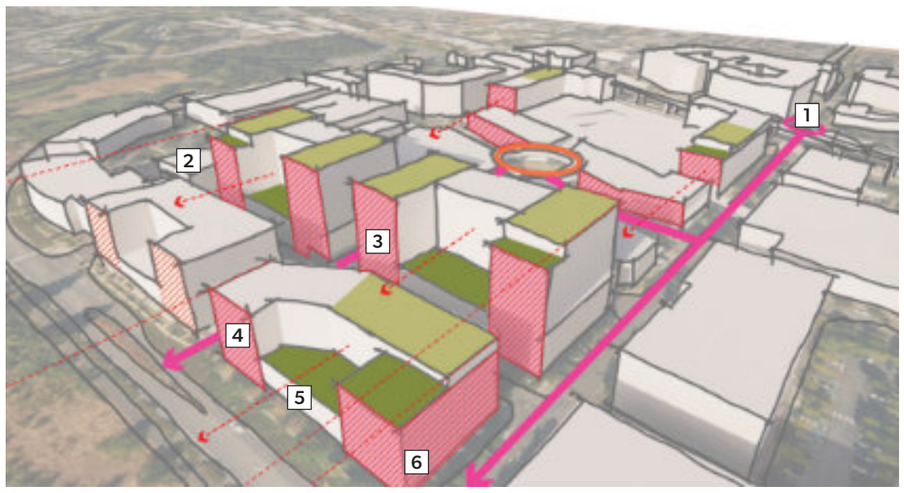
1 LIGHT RAIL STATION

2 RELIEF AT PODIUM

3 GROUND LEVEL ACTIVATION AND REGISTRATION OF PODIUM WITH MASSING ACROSS 166TH AVE NE

BULK AND SCALE DIAGRAMS (4IC ALL RESIDENTIAL SCHEME) - VIEW FROM SE

NTS



1 LIGHT RAIL STATION

2 EXISTING DEVELOPMENT

3 TERRACED MASSING AT SOUTH ORIENTATION

4 VERTICAL VARIATION OF MASSING AT LONG FACADE, REPETITION OF URBAN FORM

5 RELIEF AT BEAR CREEK PARKWAY

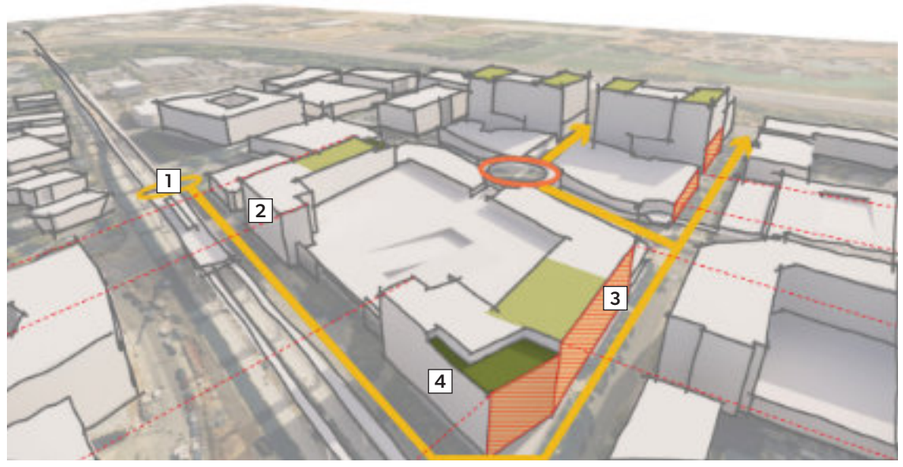
6 GATEWAY CORNER

BULK AND SCALE DIAGRAMS (4IC ALL RESIDENTIAL SCHEME) - VIEW FROM SE

NTS

NOTE:

1).Note - conceptual massing design, buildings will go through additional design review to show compliance with modulation standards as part of an overall design composition.



1 LIGHT RAIL STATION

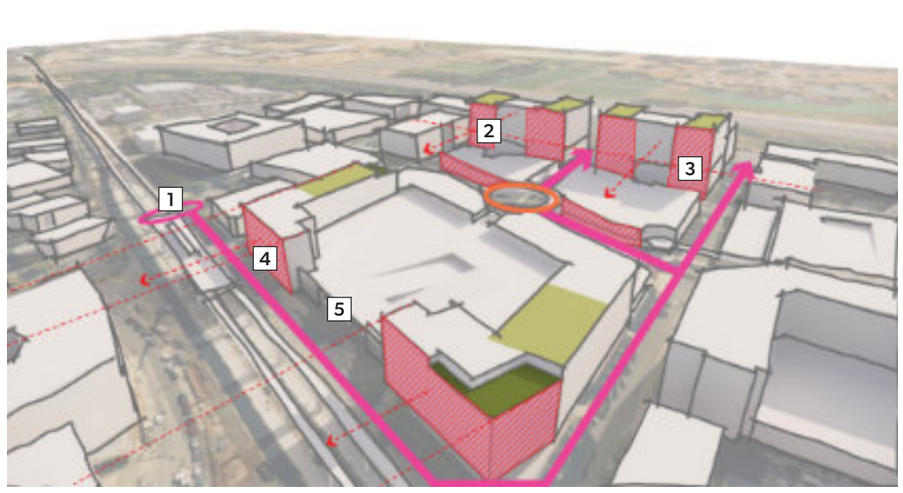
2 PROPOSED DEVELOPMENT SCALED TO MATCH ADJACENT EXISTING DEVELOPMENT

3 GROUND LEVEL ACTIVATION AND REGISTRATION OF PODIUM WITH MASSING ACROSS 164TH AVE NE

4 FACADE ORIENTED TO LIGHT RAIL

BULK AND SCALE DIAGRAMS (4IC ALL RESIDENTIAL SCHEME) - VIEW FROM NW

NTS



1 LIGHT RAIL STATION

2 VERTICAL VARIATION OF MASSING AT LONG FACADE, REPETITION OF URBAN FORM

3 TERRACED MASSING AT NORTH ORIENTATION

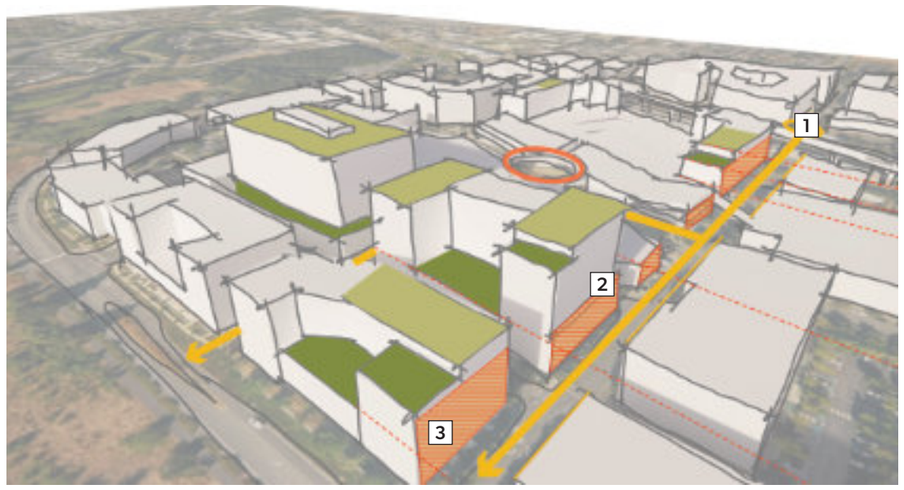
4 PROPOSED DEVELOPMENT SCALED TO MATCH ADJACENT EXISTING DEVELOPMENT

5 RELIEF AT METRO ORIENTED FACADES

BULK AND SCALE DIAGRAMS (4IC ALL RESIDENTIAL SCHEME) - VIEW FROM NW

NTS

BULK AND SCALE DIAGRAMS (4IC RESIDENTIAL AND OFFICE SCHEME)

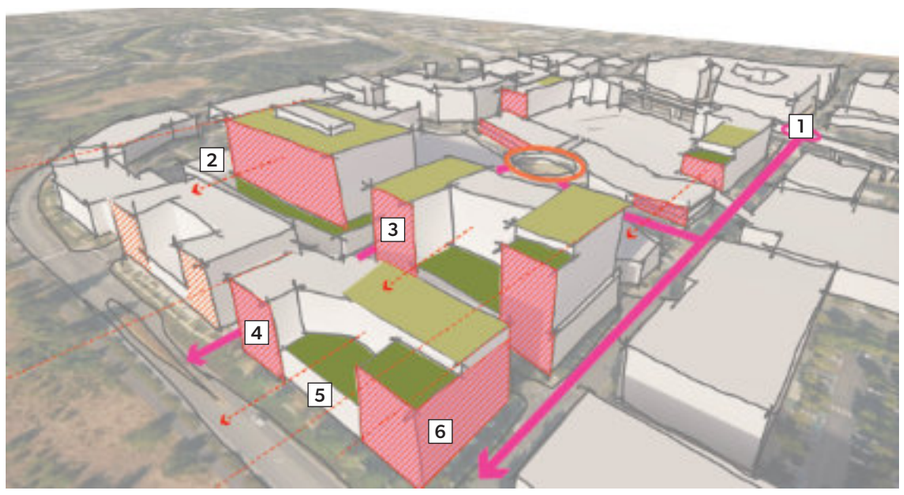


1 LIGHT RAIL STATION

2 RELIEF AT PODIUM

3 GROUND LEVEL ACTIVATION AND REGISTRATION OF PODIUM WITH MASSING ACROSS 166TH AVE NE

BULK AND SCALE DIAGRAMS (4IC RESIDENTIAL AND OFFICE SCHEME) - VIEW FROM SE
NTS



1 LIGHT RAIL STATION

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3 TERRACED MASSING AT SOUTH ORIENTATION

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6 GATEWAY CORNER

BULK AND SCALE DIAGRAMS (4IC RESIDENTIAL AND OFFICE SCHEME) - VIEW FROM SE
NTS

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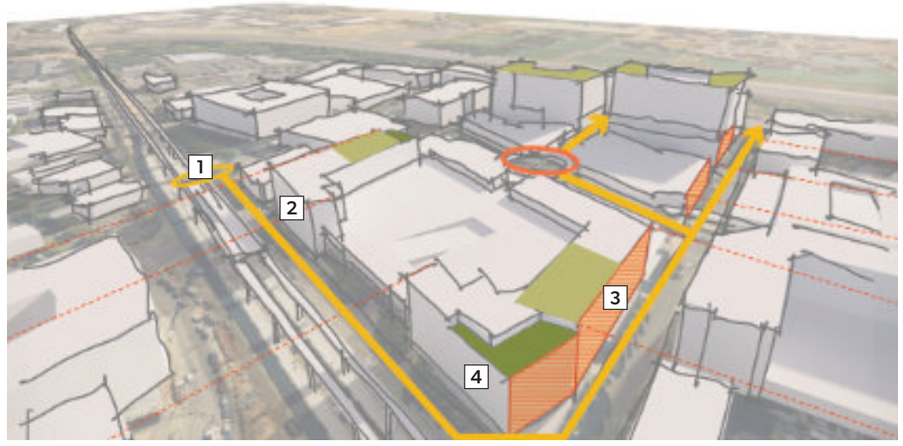


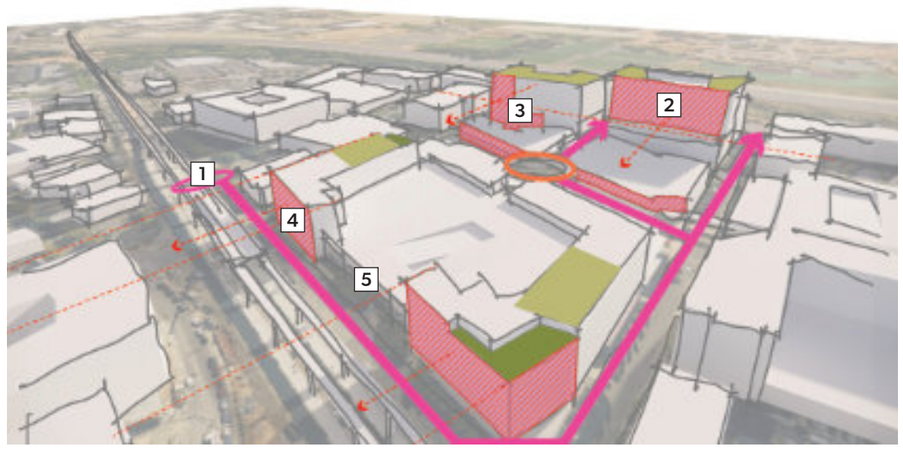
1 LIGHT RAIL STATION

2 PROPOSED DEVELOPMENT SCALED TO MATCH ADJACENT EXISTING DEVELOPMENT

3 GROUND LEVEL ACTIVATION AND REGISTRATION OF PODIUM WITH MASSING ACROSS 164TH AVE NE

4 FACADE ORIENTED TO LIGHT RAIL

BULK AND SCALE DIAGRAMS (4IC RESIDENTIAL AND OFFICE SCHEME) - VIEW FROM NW
NTS



1 LIGHT RAIL STATION

2 VERTICAL VARIATION OF MASSING AT LONG FACADE, REPETITION OF URBAN FORM

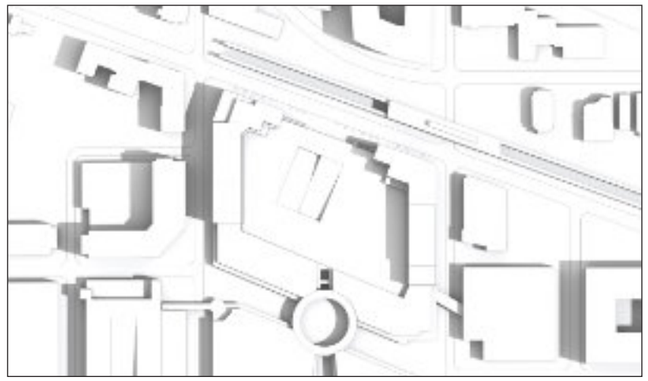
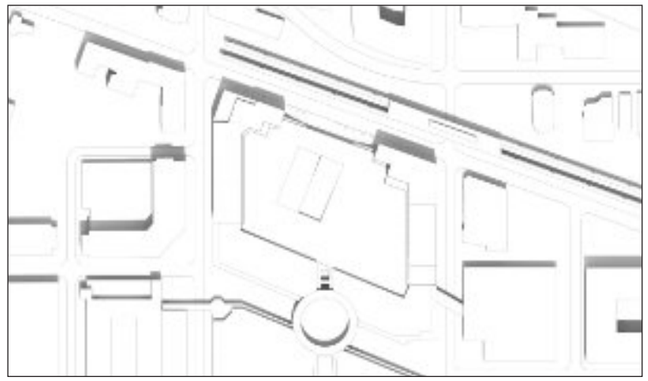
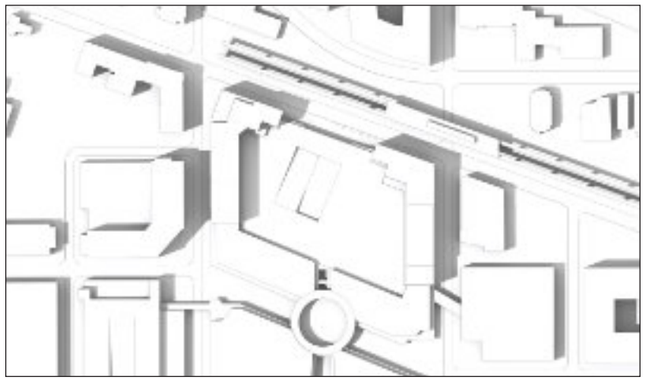
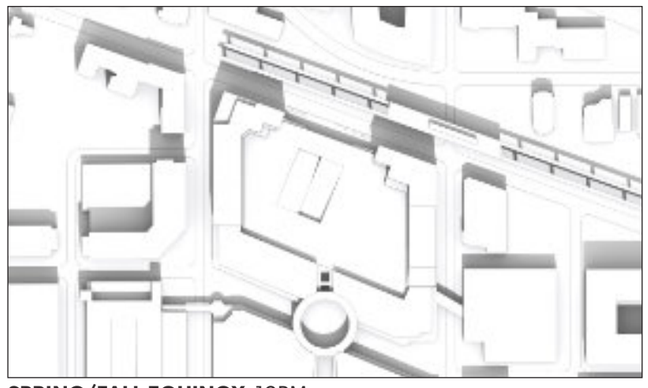
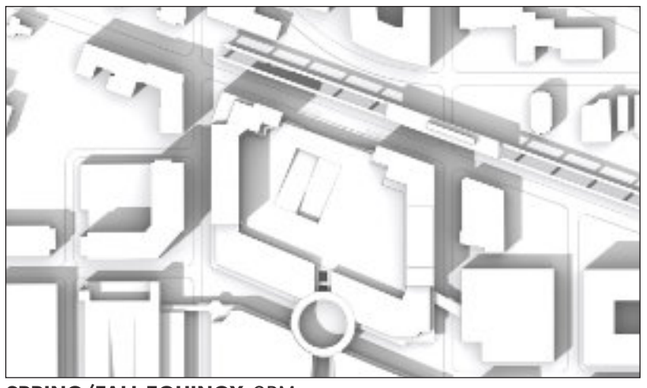
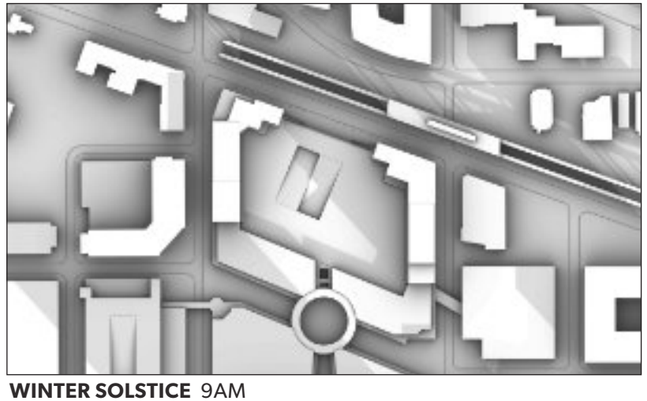
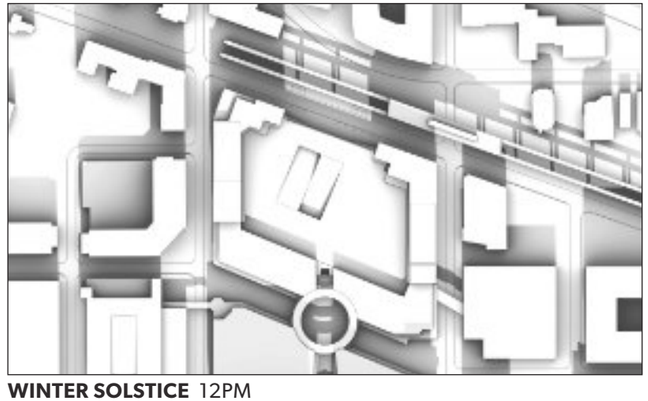
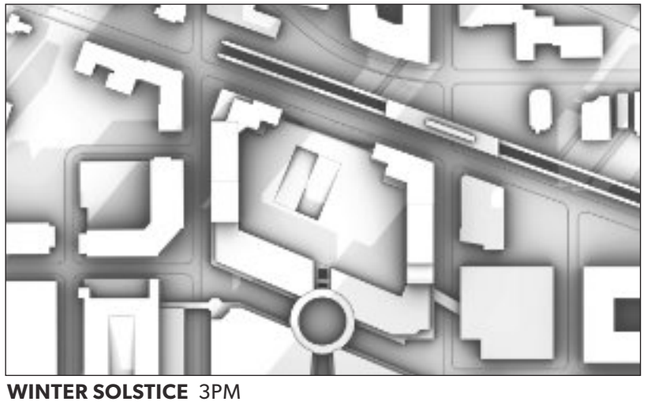
3 TERRACED MASSING AT NORTH ORIENTATION

4 PROPOSED DEVELOPMENT SCALED TO MATCH ADJACENT EXISTING DEVELOPMENT

5 RELIEF AT METRO ORIENTED FACADES

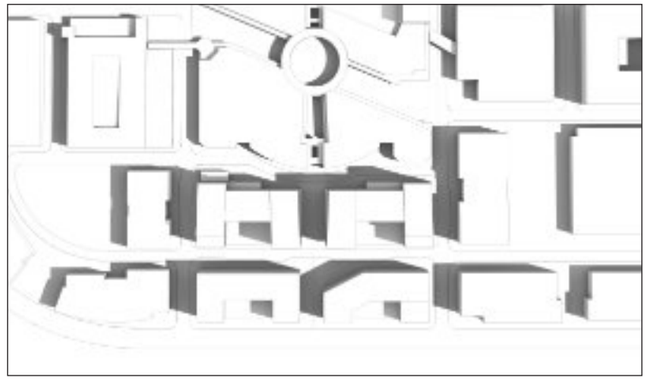
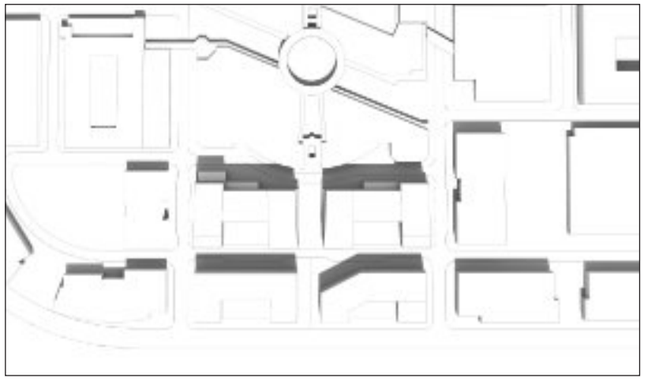
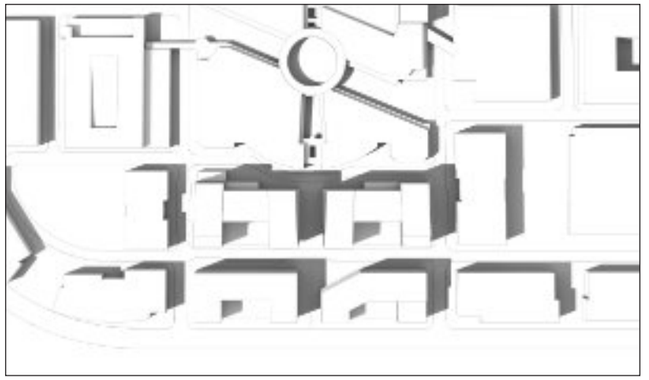
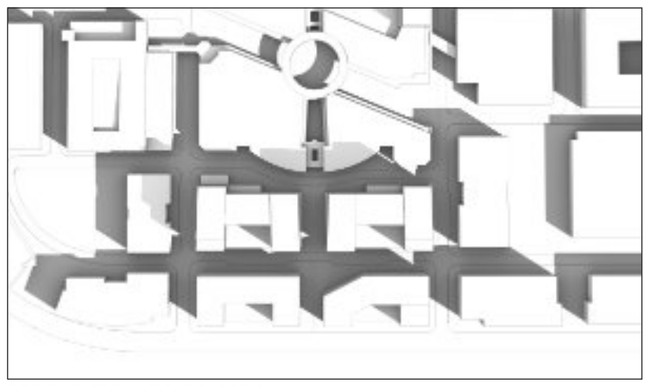
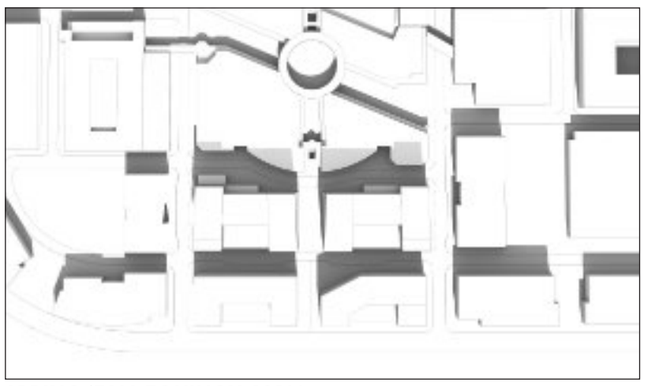
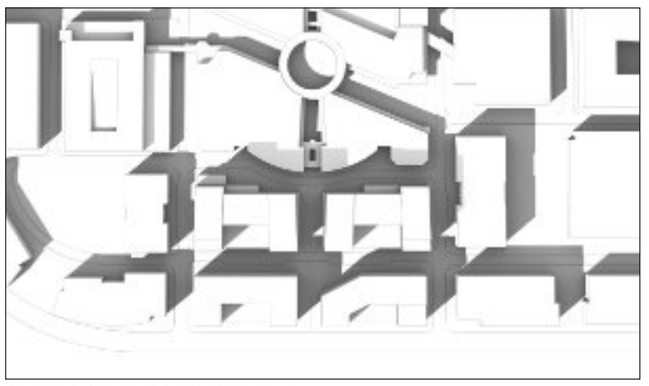
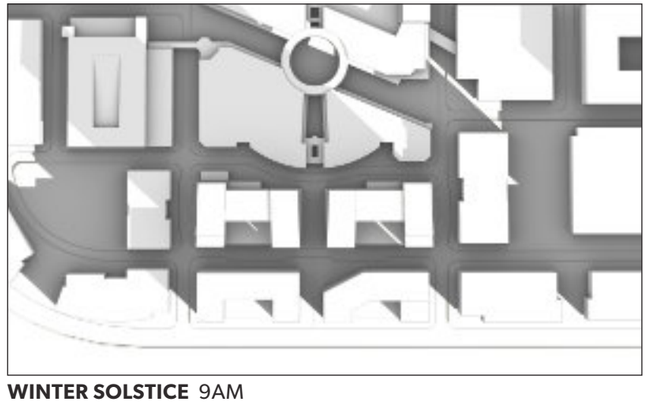
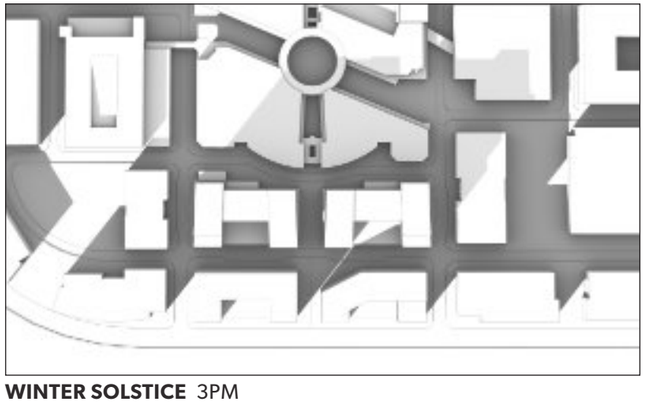
BULK AND SCALE DIAGRAMS (4IC RESIDENTIAL AND OFFICE SCHEME) - VIEW FROM NW
NTS

SHADOW STUDIES (NORTH)

	9AM	12PM	3PM
SUMMER SOLSTICE	 **SUMMER SOLSTICE** 9AM	 **SUMMER SOLSTICE** 12PM	 **SUMMER SOLSTICE** 3PM
SPRING/FALL EQUINOX	**SPRING/FALL EQUINOX** 9AM	 **SPRING/FALL EQUINOX** 12PM	 **SPRING/FALL EQUINOX** 3PM
WINTER SOLSTICE	 **WINTER SOLSTICE** 9AM	 **WINTER SOLSTICE** 12PM	 **WINTER SOLSTICE** 3PM

SHADOW STUDIES (NORTH)
NTS

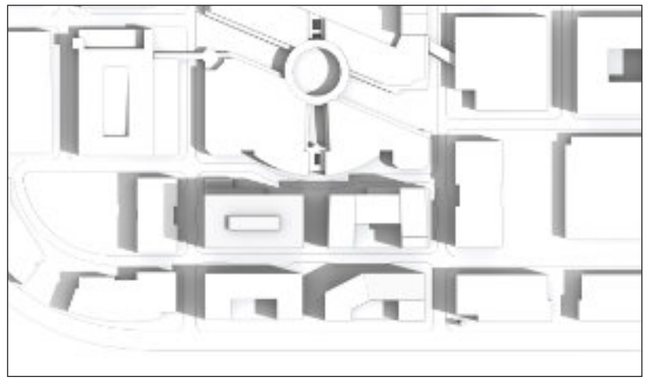
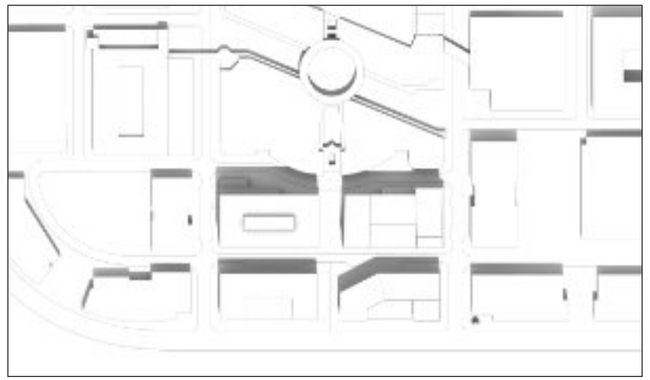
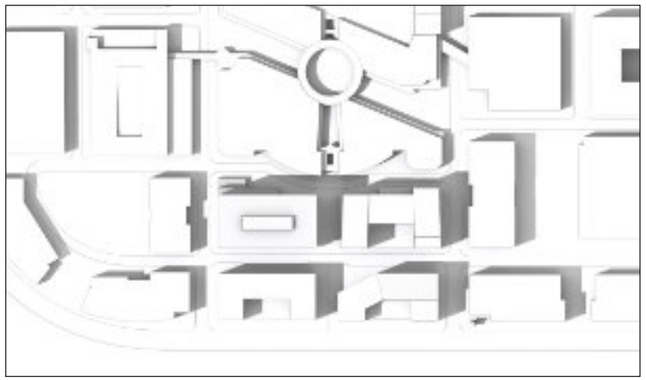
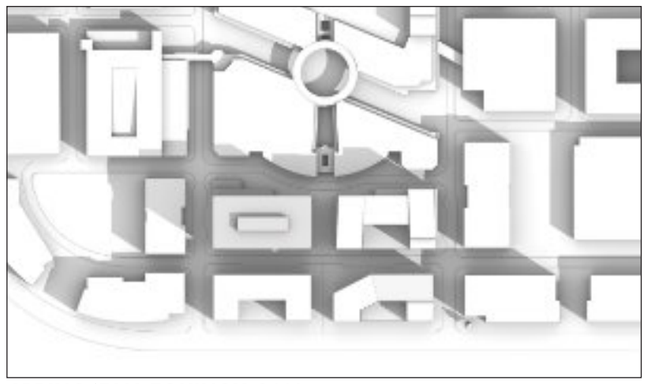
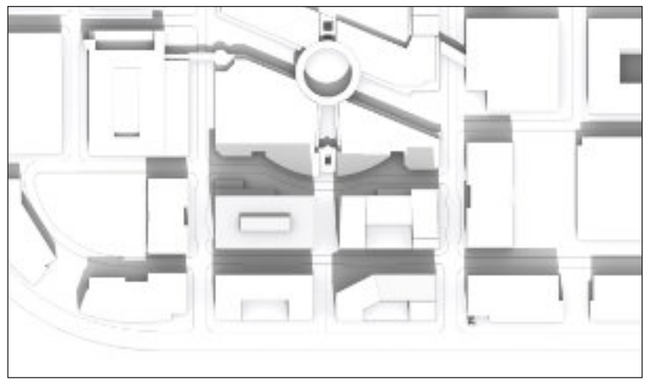
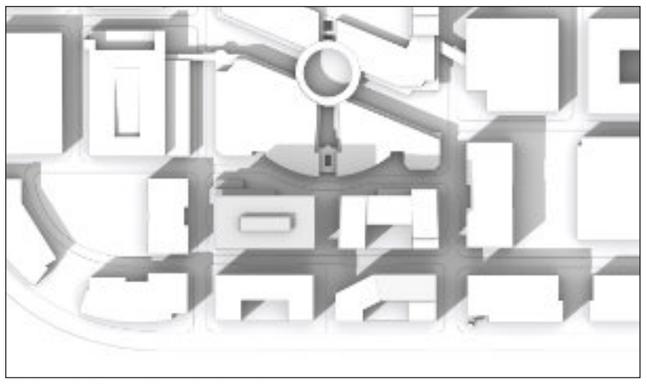
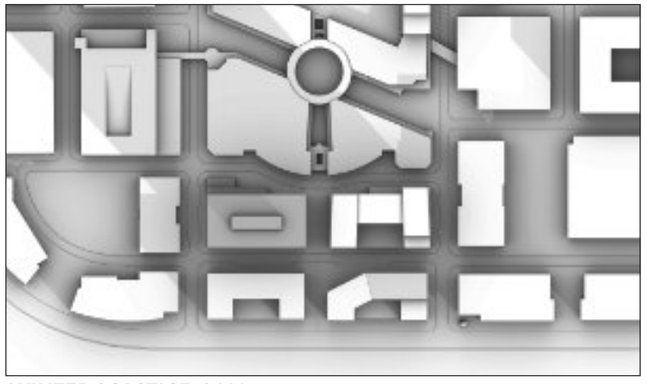
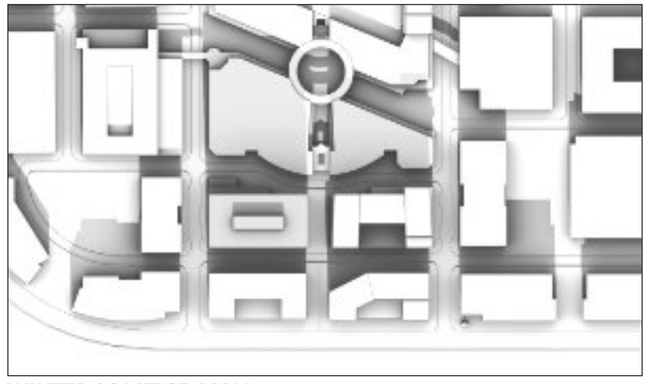
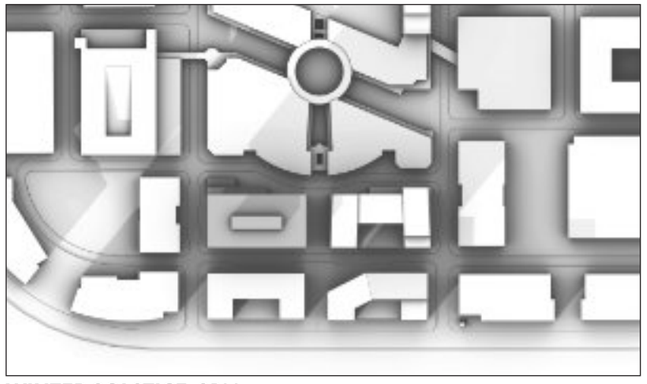
SHADOW STUDIES (SOUTH - ALL RESIDENTIAL SCHEME)

	9AM	12PM	3PM
SUMMER SOLSTICE	 **SUMMER SOLSTICE** 9AM	 **SUMMER SOLSTICE** 12PM	 **SUMMER SOLSTICE** 3PM
SPRING/FALL EQUINOX	 **SPRING/FALL EQUINOX** 9AM	 **SPRING/FALL EQUINOX** 12PM	 **SPRING/FALL EQUINOX** 3PM
WINTER SOLSTICE	 **WINTER SOLSTICE** 9AM	**WINTER SOLSTICE** 12PM	 **WINTER SOLSTICE** 3PM

SHADOW STUDIES (SOUTH - 4IC RESIDENTIAL SCHEME)

NTS

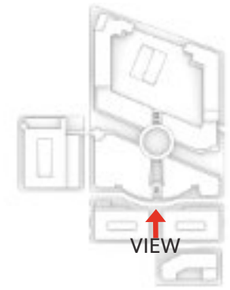
SHADOW STUDIES (SOUTH - 4IC RESIDENTIAL AND OFFICE SCHEME)

	9AM	12PM	3PM
SUMMER SOLSTICE	 **SUMMER SOLSTICE** 9AM	 **SUMMER SOLSTICE** 12PM	 **SUMMER SOLSTICE** 3PM
SPRING/FALL EQUINOX	 **SPRING/FALL EQUINOX** 9AM		 **SPRING/FALL EQUINOX** 3PM
WINTER SOLSTICE	 **WINTER SOLSTICE** 9AM	 **WINTER SOLSTICE** 12PM	 **WINTER SOLSTICE** 3PM

SHADOW STUDIES (SOUTH - 4IC OFFICE SCHEME)

NTS

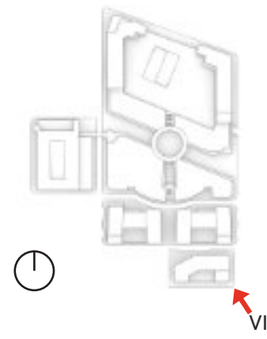
CONCEPT RENDER VIEWS - GROUND LEVEL (ALL RESIDENTIAL SCHEME)



CONCEPT RENDER VIEWS (ALL RESIDENTIAL SCHEME)

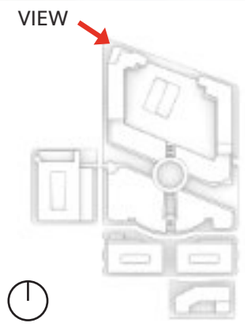
View from NW Corner of Proposed Development, NE 76th St and future Light Rail Station

View from SE Corner of Proposed Development, Bear Creek Parkway



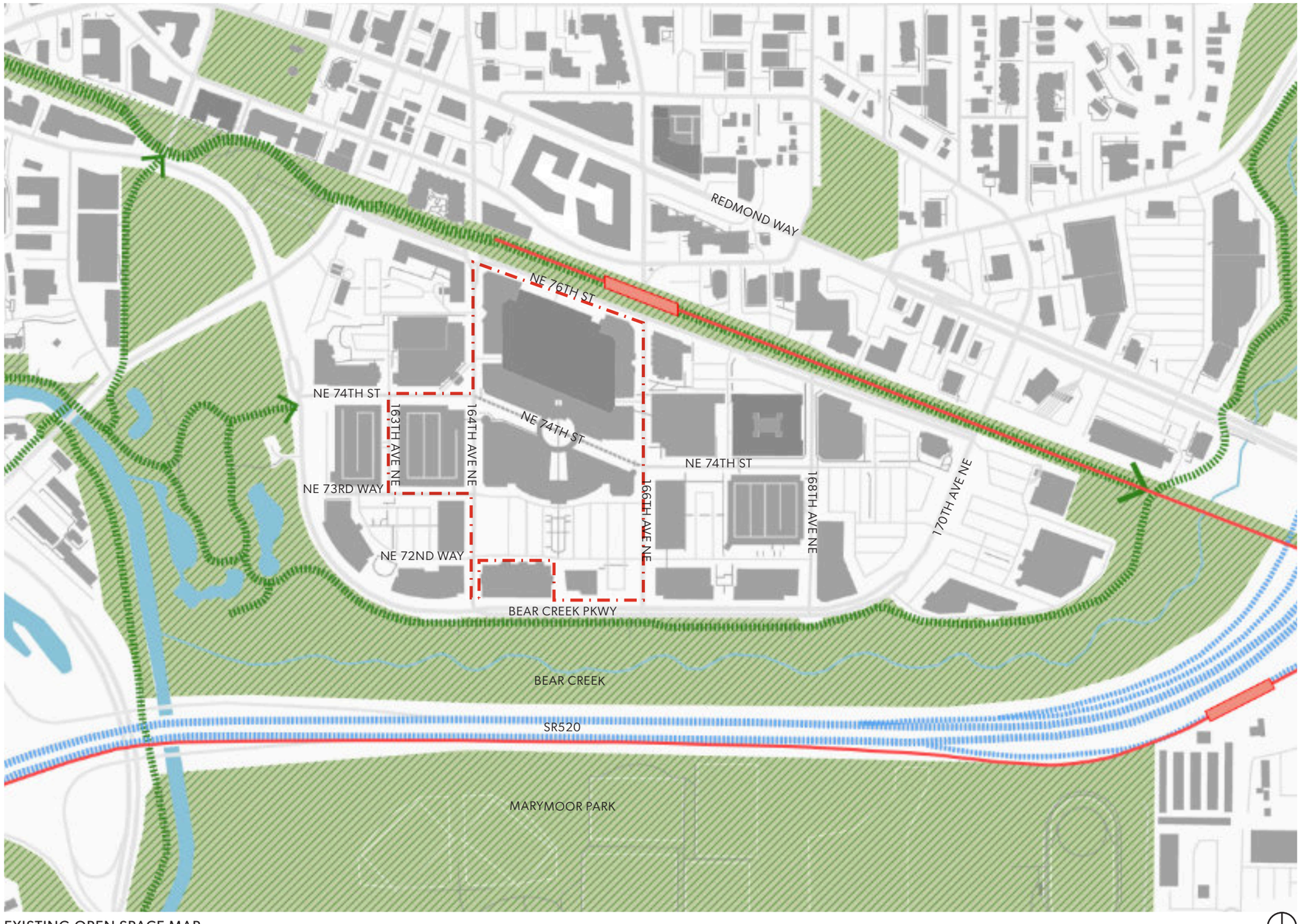
CONCEPT RENDER VIEWS (RESIDENTIAL AND OFFICE SCHEME)

View from NW Corner of Proposed Development, NE 76th St and future Light Rail Station



SECTION 3 - OPEN SPACE PLAN

EXISTING OPEN SPACE



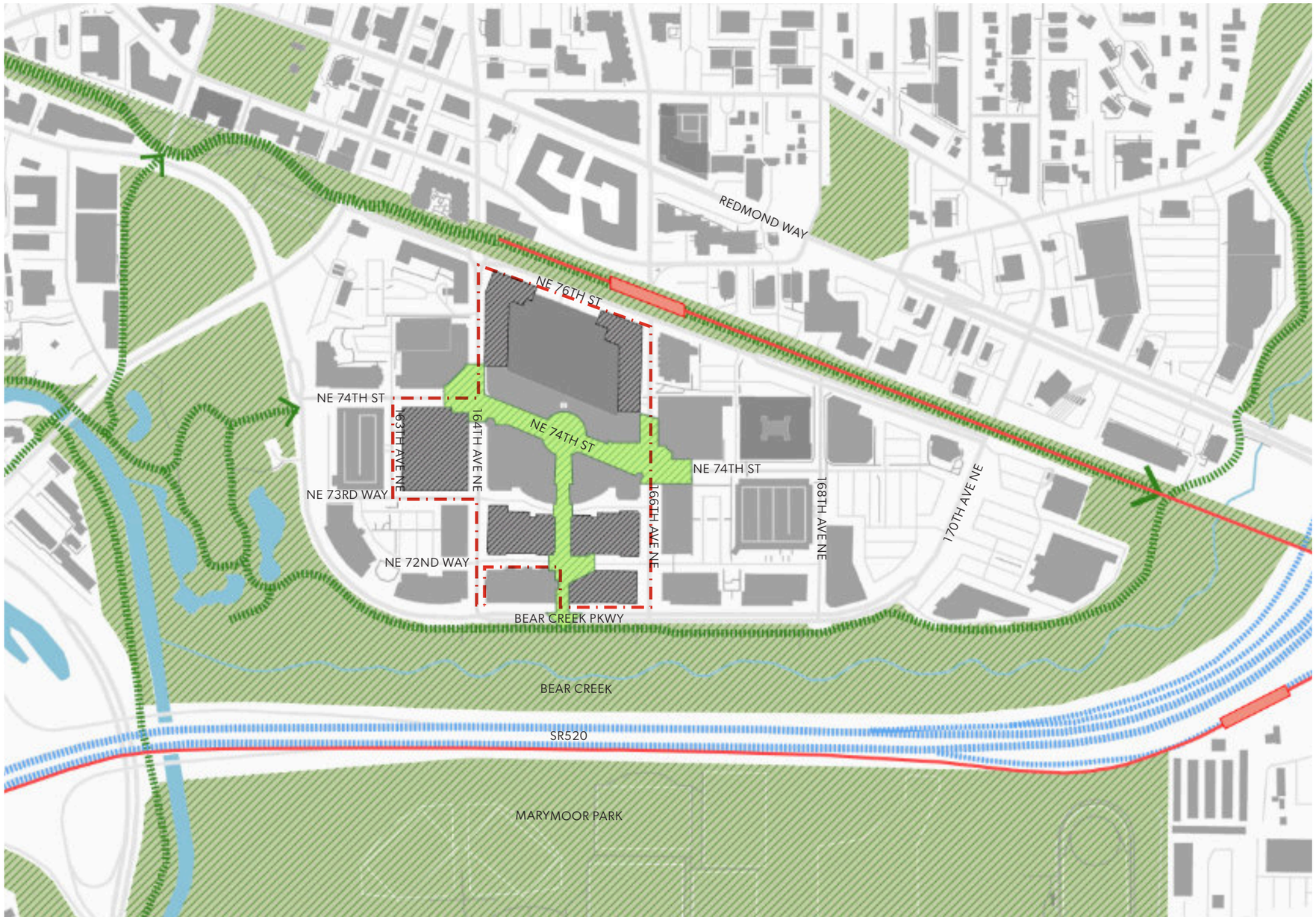
LEGEND

- PROPERTY LINE
- LIGHT RAIL
- SOUND TRANSIT STATION
- SR520
- EXISTING MULTI-USE TRAIL (PAVED)
- OPEN SPACE, NATURAL LANDSCAPE AND PARKS

EXISTING OPEN SPACE MAP

NTS

PROPOSED OPEN SPACE



LEGEND

- PROPERTY LINE
- LIGHT RAIL
- SOUND TRANSIT STATION
- SR520
- EXISTING MULTI-USE TRAIL (PAVED)
- OPEN SPACE, NATURAL LANDSCAPE AND PARKS
- PROPOSED OPEN SPACE AND PLAZAS
- PROPOSED BUILDINGS

PROPOSED OPEN SPACE MAP

NTS

PROPOSED BIKE ROUTE AND PEDESTRIAN

LEGEND

- PROJECT BOUNDARY
- LIGHT RAIL
- SOUND TRANSIT STATION
- SR520
- EXISTING MULTI-USE TRAIL (PAVED)
- EXISTING BIKE LANES
- PROPOSED BIKE LANES
- PROPOSED PEDESTRIAN ROUTE
- WALK RADIUS
- PROPOSED BUILDINGS
- PROPOSED BIKE ROOMS

PROPOSED BIKE ROUTE AND PEDESTRIAN MAP

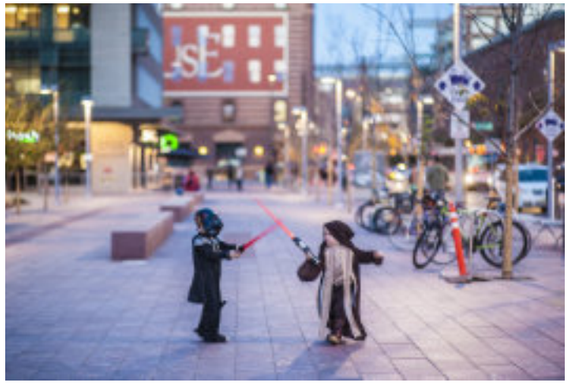
NTS

OPEN SPACE CHARACTER PRECEDENT IMAGES

Informal gathering spaces

Informal gathering spaces

Pedestrian streetscape



Flexible plaza spaces

Informal gathering spaces

Pedestrian streetscape

Opportunities for dining spill-out

Informal gathering spaces

Event programming opportunities

PROPOSED GROUND LEVEL

GROUND LEVEL MASTER PLAN - ALL RESIDENTIAL SCHEME

PROPOSED GROUND LEVEL - ALL RESIDENTIAL SCHEME

0' 100' 200'

GROUND LEVEL MASTER PLAN - RESIDENTIAL AND OFFICE SCHEME

PROPOSED GROUND LEVEL - RESIDENTIAL AND OFFICE SCHEME

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING
- PARKING ENTRY
- LOADING ENTRY
- PEDESTRIAN ENTRY

ROOF LEVEL PLAN

ROOF LEVEL PLAN - ALL RESIDENTIAL SCHEME

PROPOSED ROOF LEVEL - ALL RESIDENTIAL SCHEME

0' 100' 200'

ROOF LEVEL PLAN - RESIDENTIAL AND OFFICE SCHEME

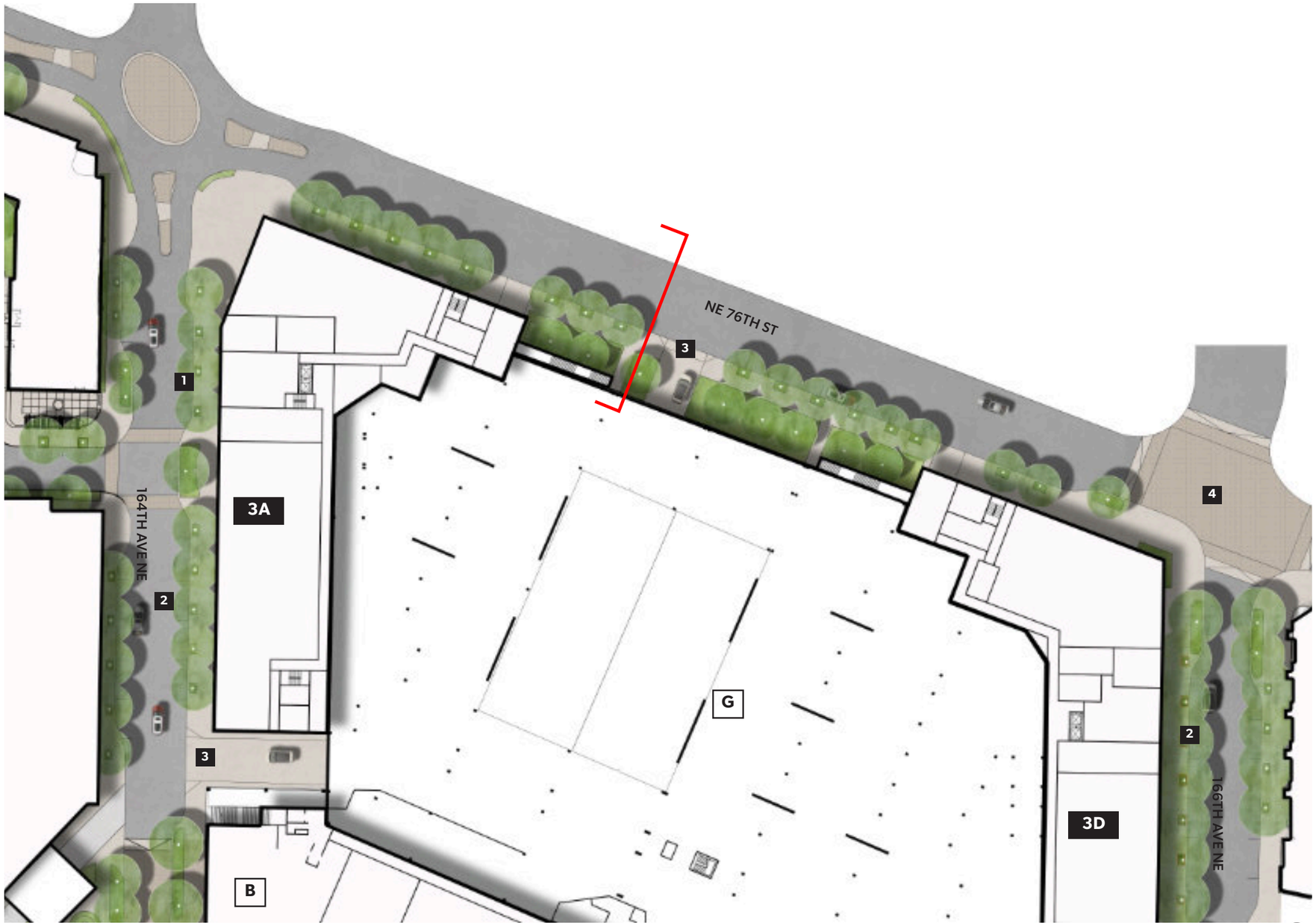
PROPOSED ROOF LEVEL - RESIDENTIAL AND OFFICE SCHEME

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING
- UNOCCUPIED GREEN ROOF
- BUILDING OPEN SPACE
- INTENDED NOT TO BE VEGETATED

CONCEPTUAL LANDSCAPE PLAN - NORTH



LEGEND

- 1 STREET TREES TO REMAIN
- 2 STREET PARKING
- 3 GARAGE ENTRY
- 4 ENHANCED CROSSWALK
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

CONCEPTUAL LANDSCAPE PLAN - NORTH

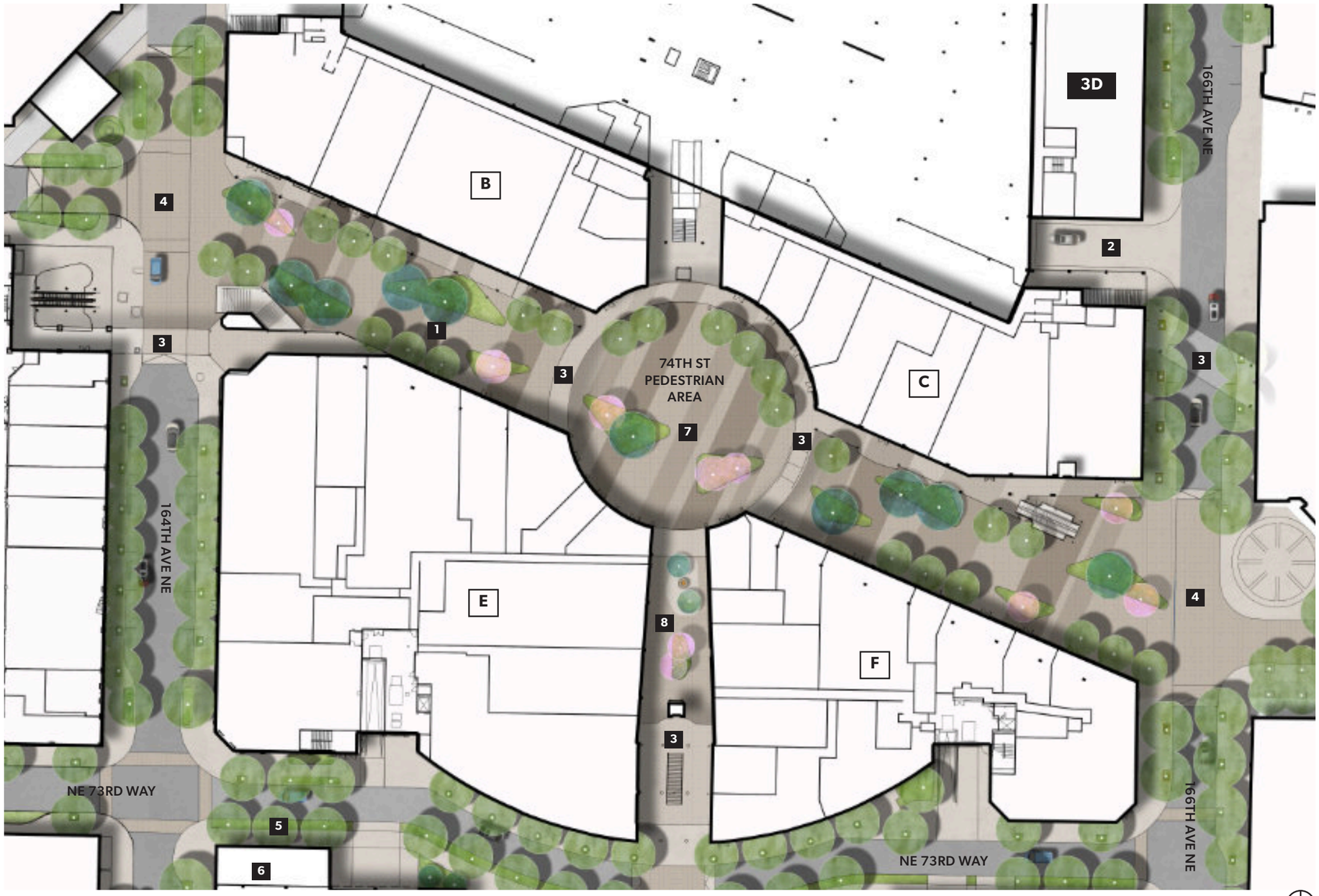
0' 35' 70'

NE 76TH STREET CONCEPTUAL STREET FRONTAGE SECTION

NE 76TH STREET SECTION

0' 4' 8'

CONCEPTUAL LANDSCAPE PLAN - CENTRAL



CONCEPTUAL LANDSCAPE PLAN - CENTRAL

0′ 35′ 70′

LEGEND

1. 74TH STREET ENHANCEMENTS (FUTURE PHASE)
2. GARAGE ENTRY
3. PEDESTRIAN BRIDGE
4. RAISED ENHANCED INTERSECTION
5. PROPOSED STREET TREES
6. BIKE ROOM ACCESS
7. CENTRAL COURT
8. PEDESTRIAN SPINE AT COMMERCIAL

EXISTING BUILDING

PROPOSED NEW OR MODIFIED EXISTING BUILDING

CONCEPTUAL LANDSCAPE PLAN - SOUTH (ALL RESIDENTIAL SCHEME)

CONCEPTUAL LANDSCAPE PLAN - SOUTH

0' 35' 70'

LEGEND

1 BIKE ROOM ACCESS
2 TRASH/LOADING
3 COMMERCIAL SPILLOUT
4 ENHANCED CROSSING
5 STREET TREES TO REMAIN
6 GARAGE ENTRY
7 LOBBY ENTRY
8 AMENITY TERRACE
9 GROUND RELATED UNITS WITH STOOPS
10 NEW STREETSCAPE
11 NEW STREET TREES
12 PEDESTRIAN CORRIDOR / OPEN SPACE

EXISTING BUILDING

PROPOSED NEW OR MODIFIED EXISTING BUILDING

CONCEPTUAL LANDSCAPE PLAN - SOUTH (RESIDENTIAL AND OFFICE SCHEME)

CONCEPTUAL LANDSCAPE PLAN - SOUTH

0' 35' 70'

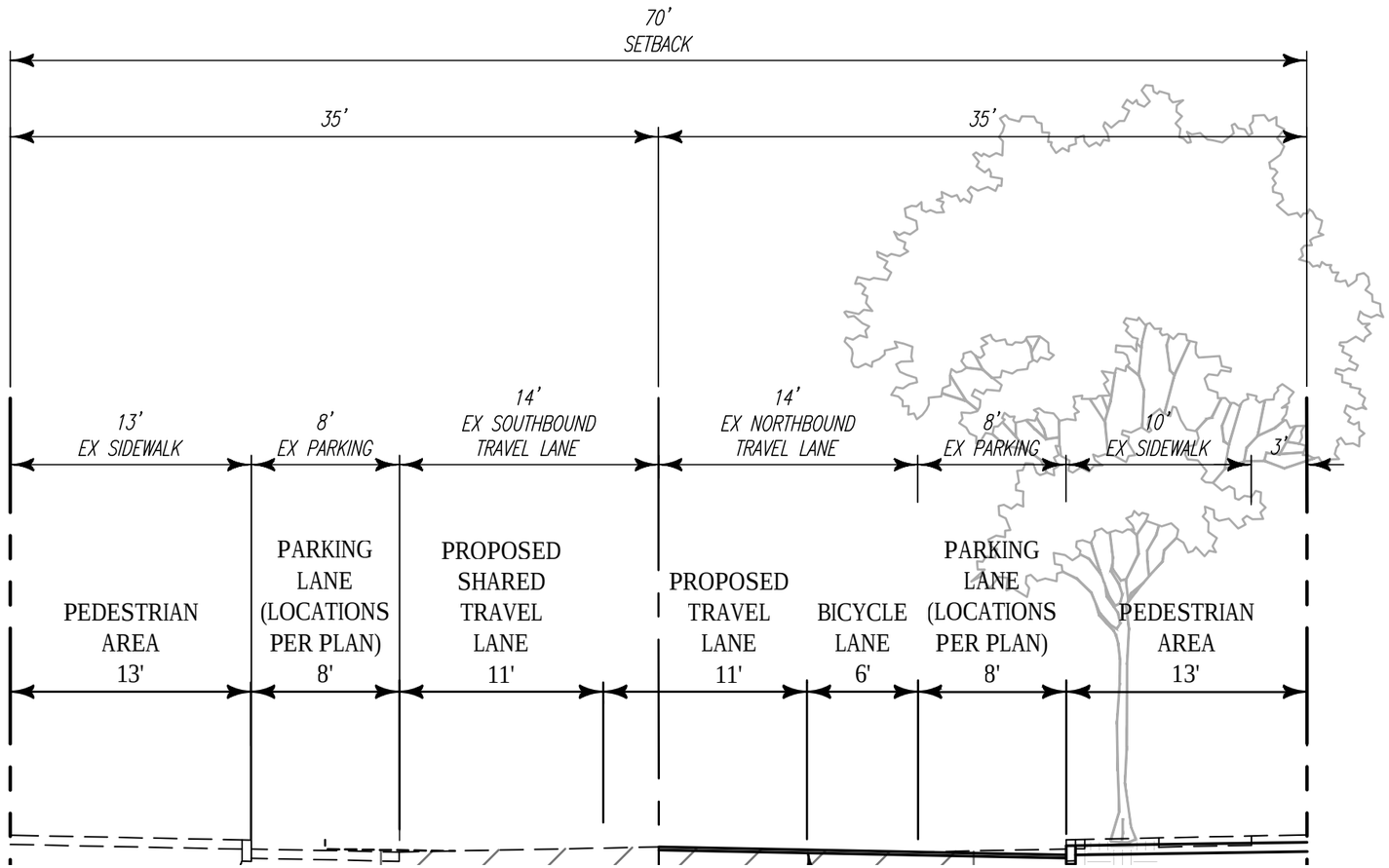
LEGEND

1 RETAIL
2 TRASH/LOADING
3 COMMERCIAL SPILLOUT
4 ENHANCED CROSSING
5 STREET TREES TO REMAIN
6 GARAGE ENTRY
7 LOBBY ENTRY
8 AMENITY TERRACE
9 GROUND RELATED UNITS WITH STOOPS
10 NEW STREETSCAPE
11 NEW STREET TREES
12 PEDESTRIAN CORRIDOR / OPEN SPACE

EXISTING BUILDING

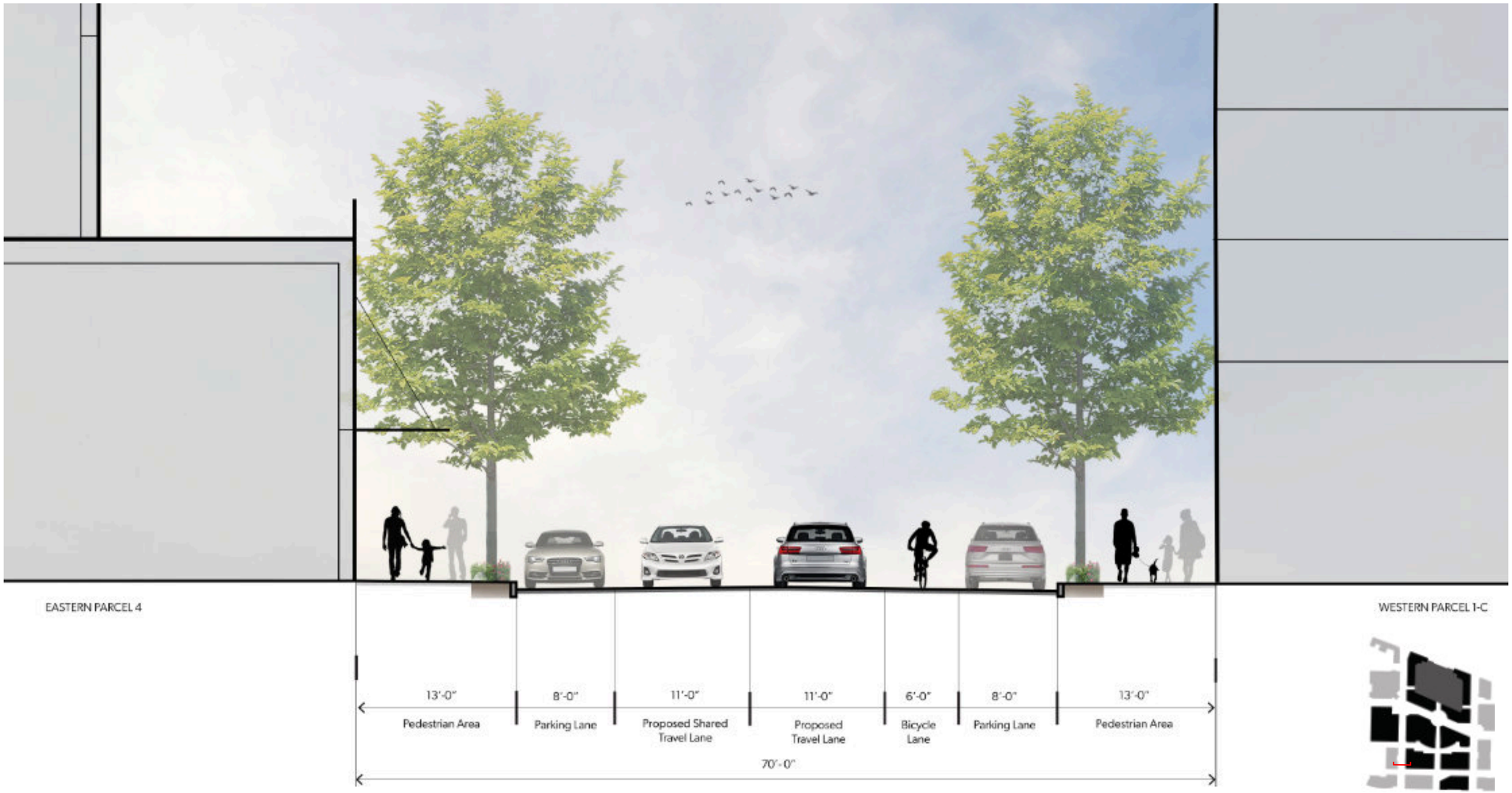
PROPOSED NEW OR MODIFIED EXISTING BUILDING

EXISTING 164TH AVE NE STREET SECTION (PRIVATE)



164TH AVE NE CIVIL STREET SECTION
NOT TO SCALE

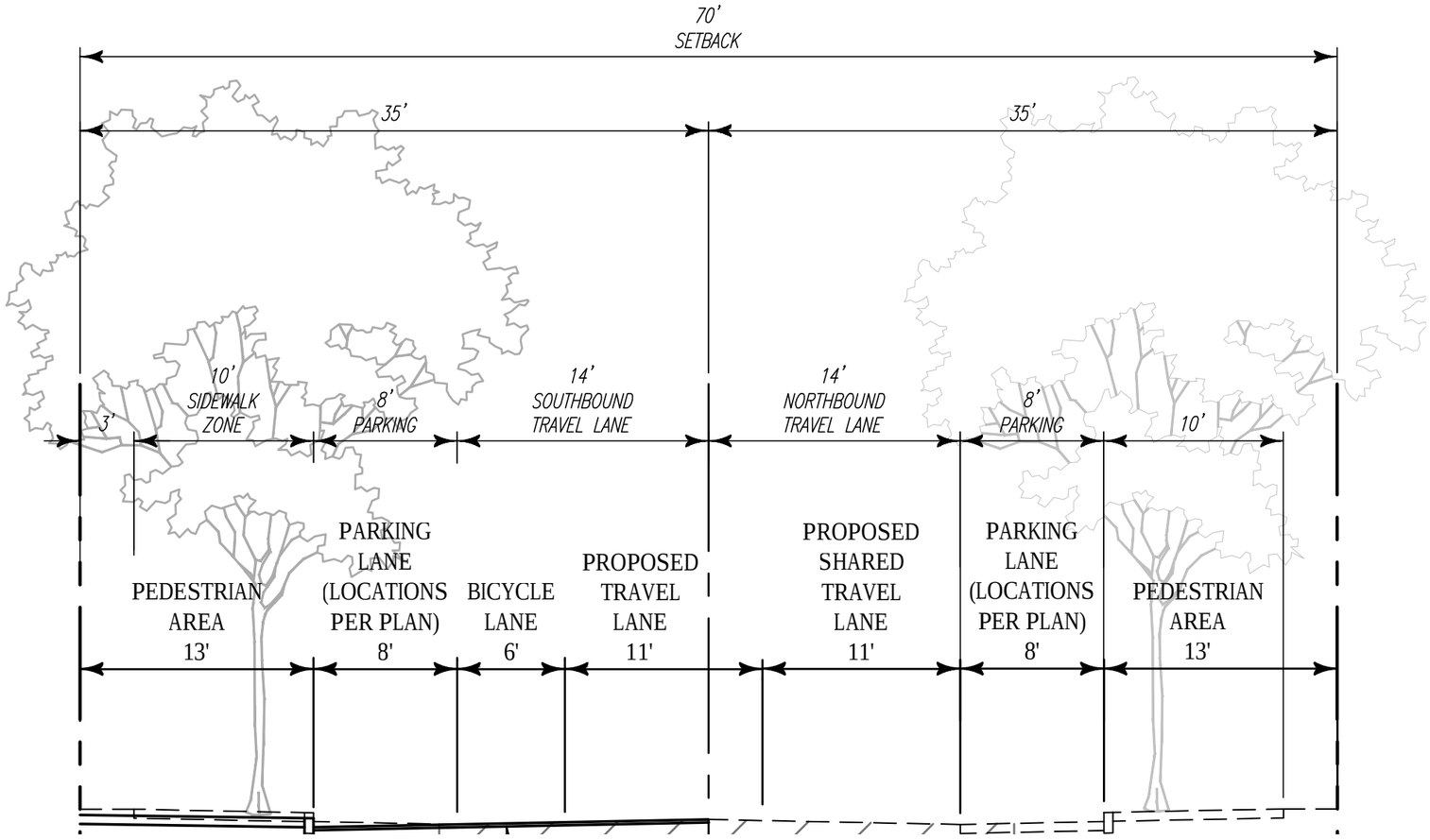
PROPOSED 164TH AVE NE STREET SECTION (PRIVATE)



PROPOSED 164TH AVE NE STREET SECTION

0' 4' 8'

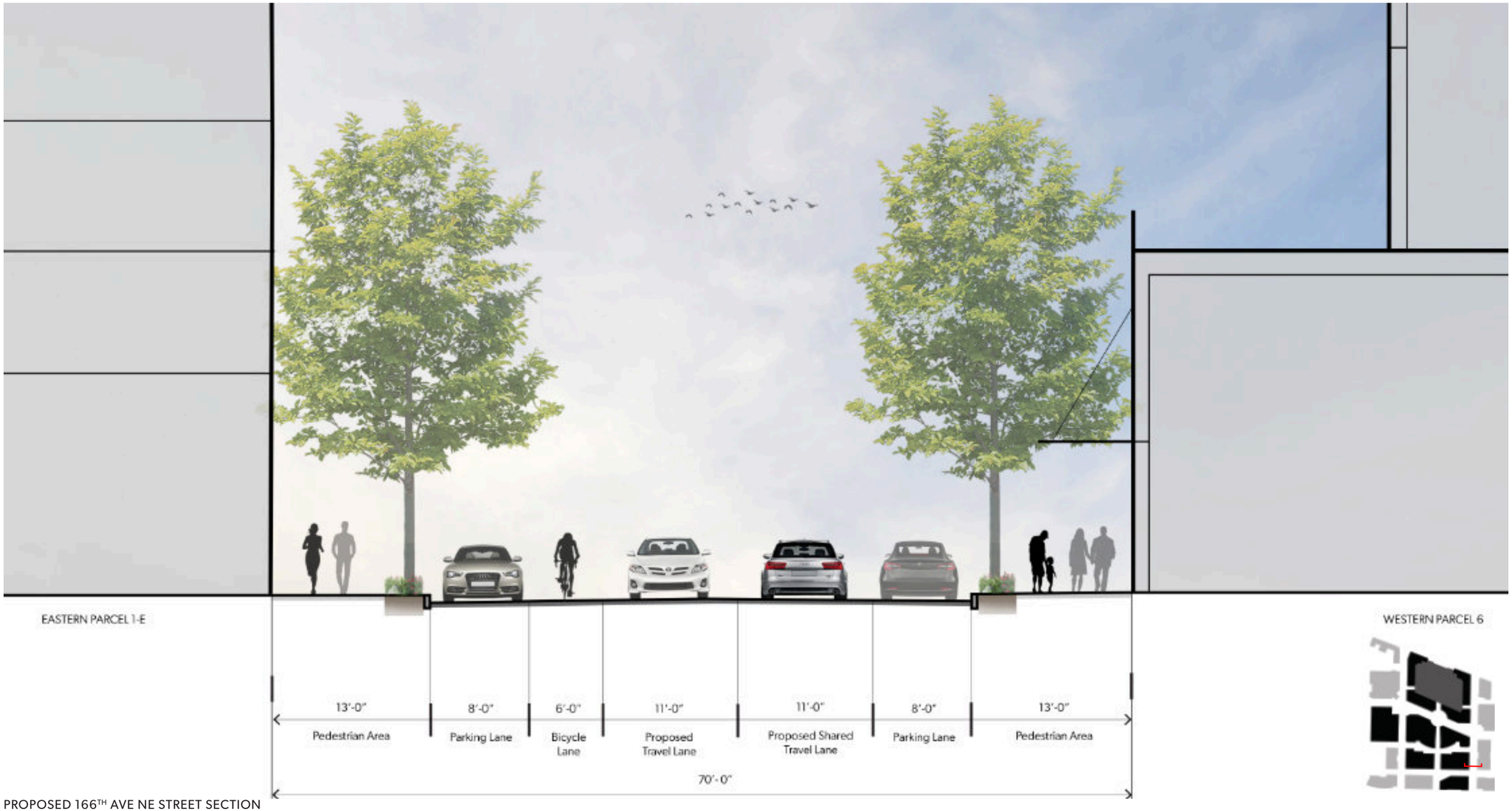
EXISTING 166TH AVE NE STREET SECTION (PRIVATE)



166TH AVE NE CIVIL STREET SECTION

NOT TO SCALE

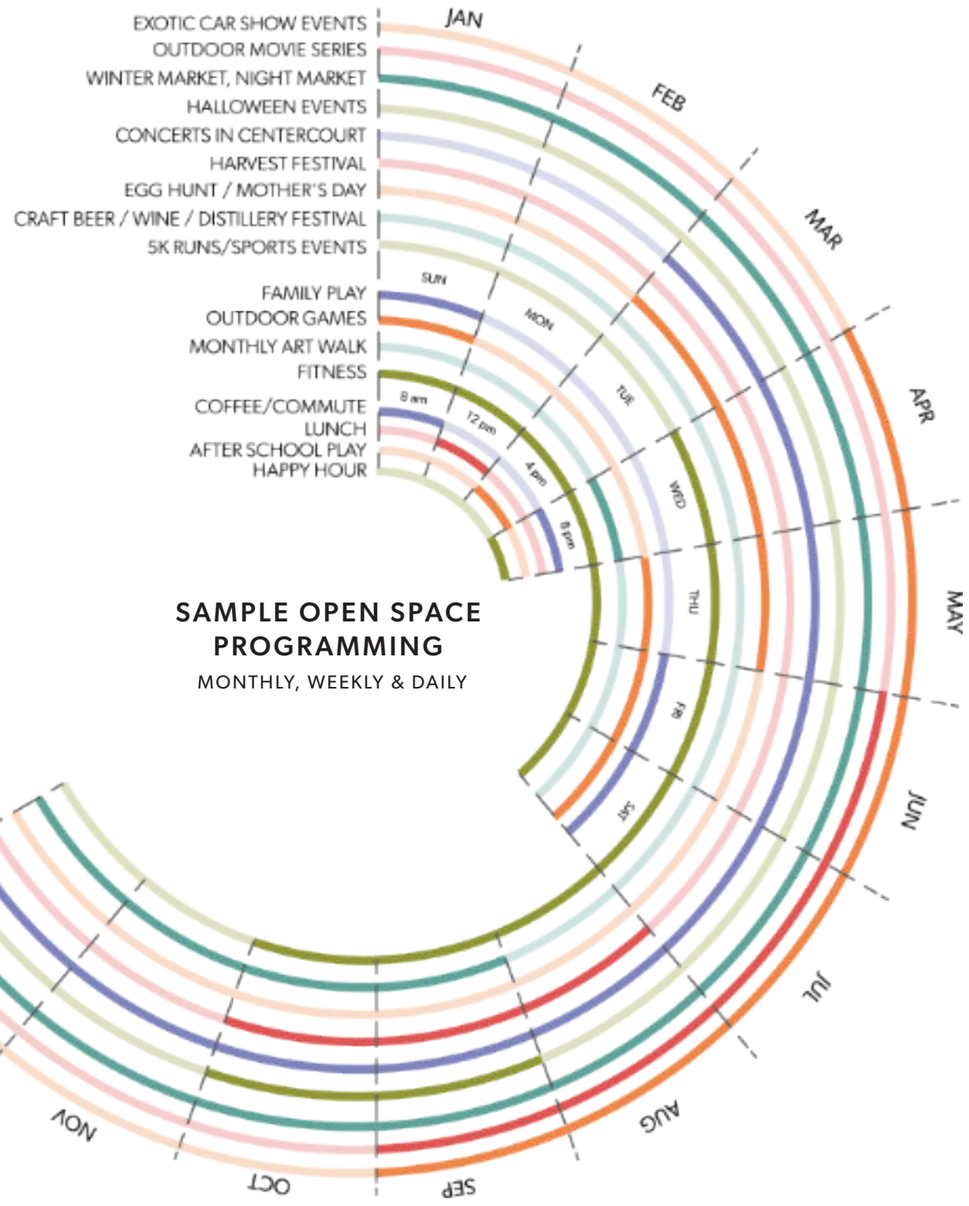
PROPOSED 166TH AVE NE STREET SECTION (PRIVATE)



PROPOSED 166TH AVE NE STREET SECTION

0' 4' 8'

OPEN SPACE PROGRAM



SAMPLE OPEN SPACE PROGRAMMING

MONTHLY, WEEKLY & DAILY

CENTER COURT EVENT SPACE

- CONCERTS
- OUTDOOR MOVIES
- PERFORMANCES AT CENTER COURT
- EXOTIC CAR SHOWS
- HOLIDAY TREE
- FLAGPOLE
- HOLIDAY MARKET
- HARVEST FESTIVAL
- HALLOWEEN EVENT
- SPRING EVENT/EASTER
- SUMMER EVENT/4TH OF JULY
- CHINESE NEW YEAR/ LUNAR NEW YEAR
- DIWALI FESTIVAL/ LIGHTING FESTIVAL
- ART WALK
- NIGHT MARKET
- CARNIVAL
- CRAFT BEER/WINE/DISTILLERY FESTIVAL

ACTIVE USES

- FIREPIT AREAS
- BIKE AMENITIES
- WALKING LOOPS
- OUTDOOR GAMES
- YOGA/TAI-CHI
- DOG AMENITIES

NEIGHBORHOOD COMPONENTS

- BULLETIN BOARD KIOSK
- BATHROOM ACCESS
- BOOK CART/LIBRARY
- DRINKING/ PET FOUNTAIN
- CURBSIDE PICK UP ZONES
- RIDESHARE ZONES

ICONIC ELEMENTS

- WATER FEATURE
- ICONIC ART
- LED CENTENARY LIGHTING
- SEASONAL LIGHT DISPLAYS
- STORMWATER SWALES
- GREEN ROOFS & WALLS

MOVABLE TABLE & CHAIRS

- SWINGS
- PICNIC
- HARVEST TABLE
- LOUNGE SEATING
- BUILT-IN PLATFORMS
- HAMMOCKS

RETAIL OPPORTUNITIES

- FOOD KIOSKS
- RETAIL KIOSKS/POP-UPS
- GEAR/GAME RENTAL

THEMES

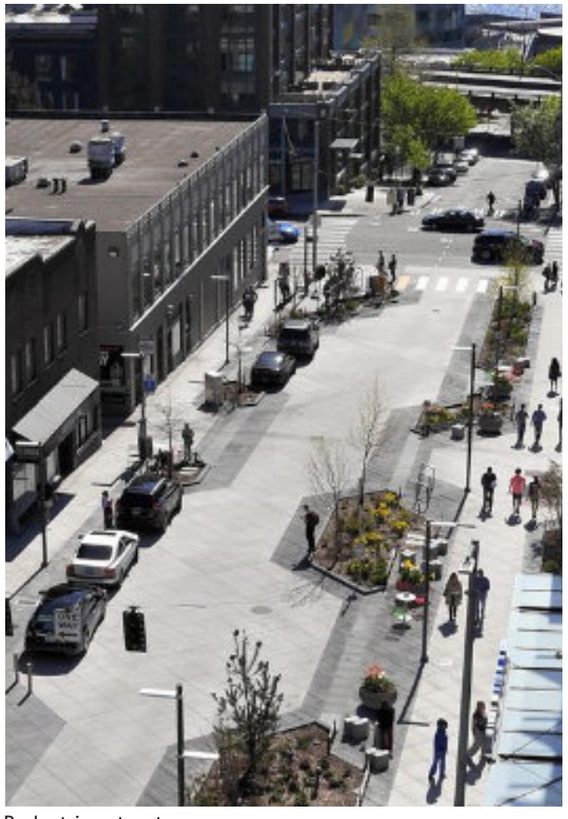
- CRAFT/ARTISAN
- FARM TO TABLE
- RAINWATER
- BEAR CREEK/WATERSHED

WOONERF/EASEMENTS PRECEDENT IMAGES

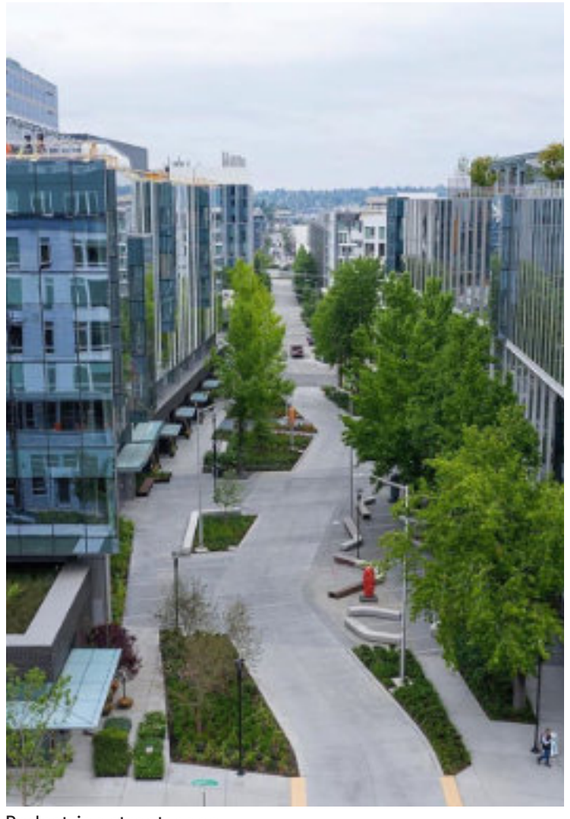
Pedestrian plaza

Pedestrian streetscape

Pedestrian streetscape

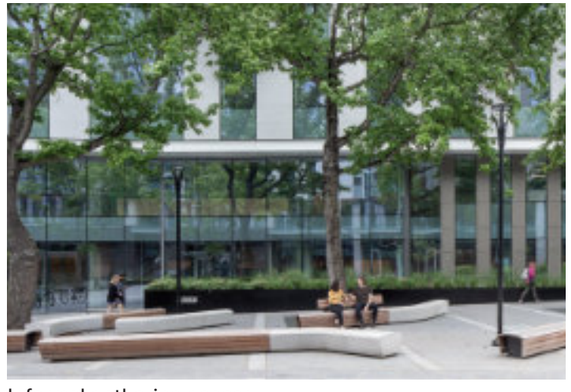


Pedestrian streetscape



Pedestrian streetscape

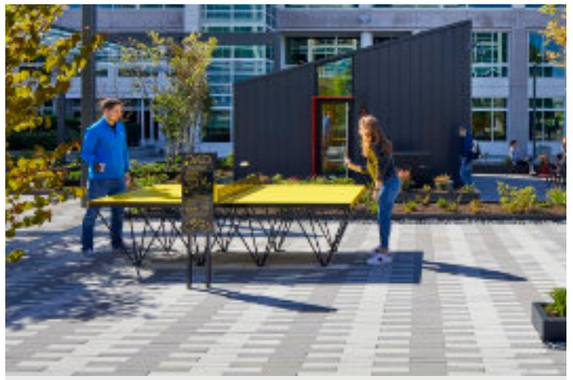
Informal gathering spaces



Informal gathering spaces

PUBLIC AMENITIES/OUTDOOR PLAZAS PRECEDENT IMAGES

Informal gathering spaces



Urban recreation opportunities

Informal gathering spaces

Spill out dining areas

Informal gathering spaces

Informal gathering spaces

Pedestrian streetscape

Bicycle street furniture

Bicycle street furniture

CULTURAL FACILITIES PRECEDENT IMAGES

Event programming opportunities

Community Events

Urban recreation opportunities

Flexible plaza spaces

Informal gathering spaces

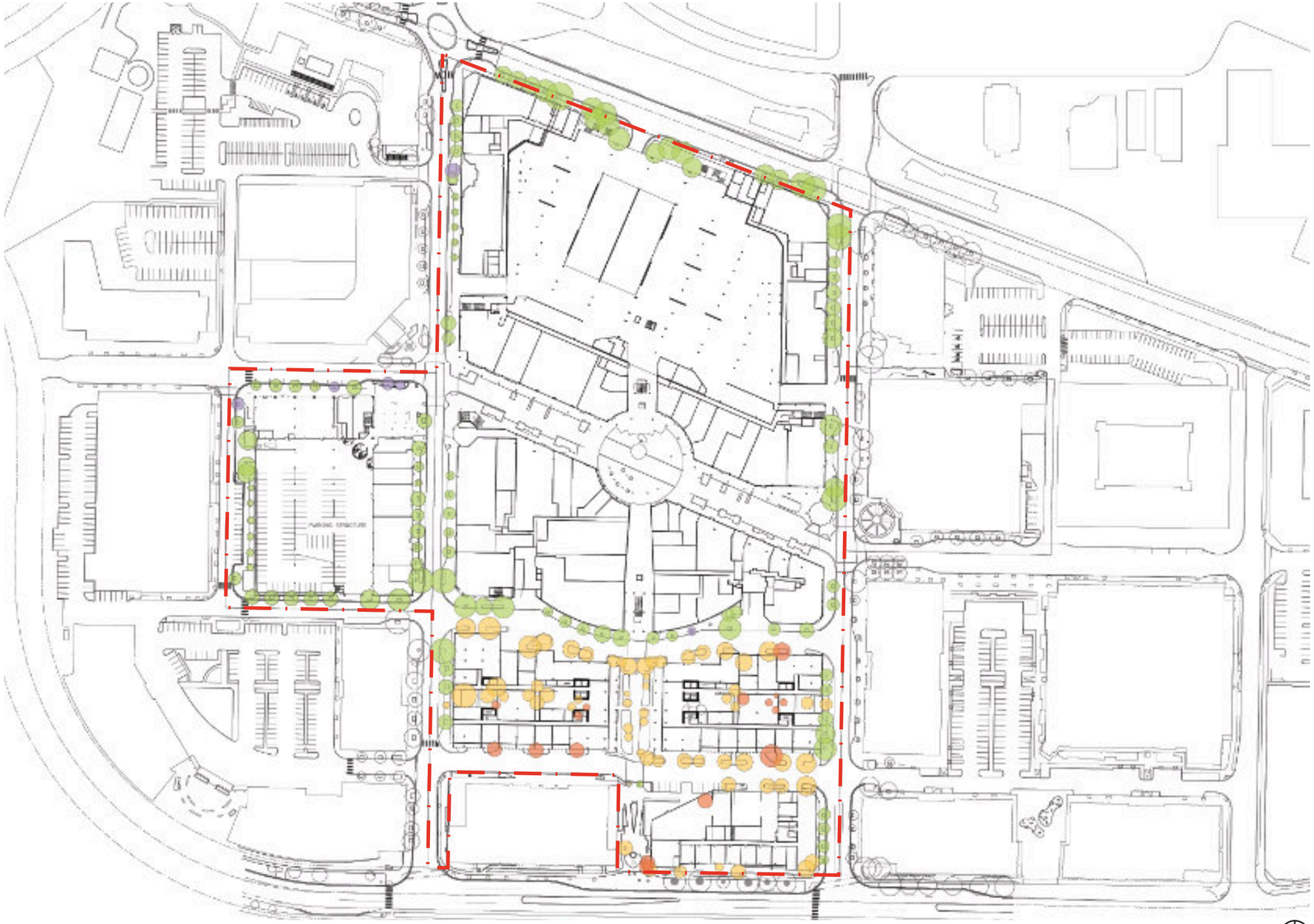
Spill out dining areas

Community Events

Urban recreation opportunities

Event programming opportunities

TREE PRESERVATION PLAN



TREE PRESERVATION PLAN
NTS

LEGEND

- PROPERTY LINE
- SIGNIFICANT TREES TO BE REMOVED
- SIGNIFICANT TREES TO REMAIN
- UNREGULATED TREES TO BE REMOVED
- UNREGULATED TREES TO REMAIN
- OFF-SITE TREES

SUMMARY:

Existing Trees on Site: 191 Total
165 Significant

Significant Trees to Remain: 95

Landmark Trees on Site: N/A

Req Significant Tree Retention = 35%
Actual Significant Tree Retention = 59.4%

Replacement Trees Requires
Significant Trees (1:1) = 65 on-site,
4 R.O.W

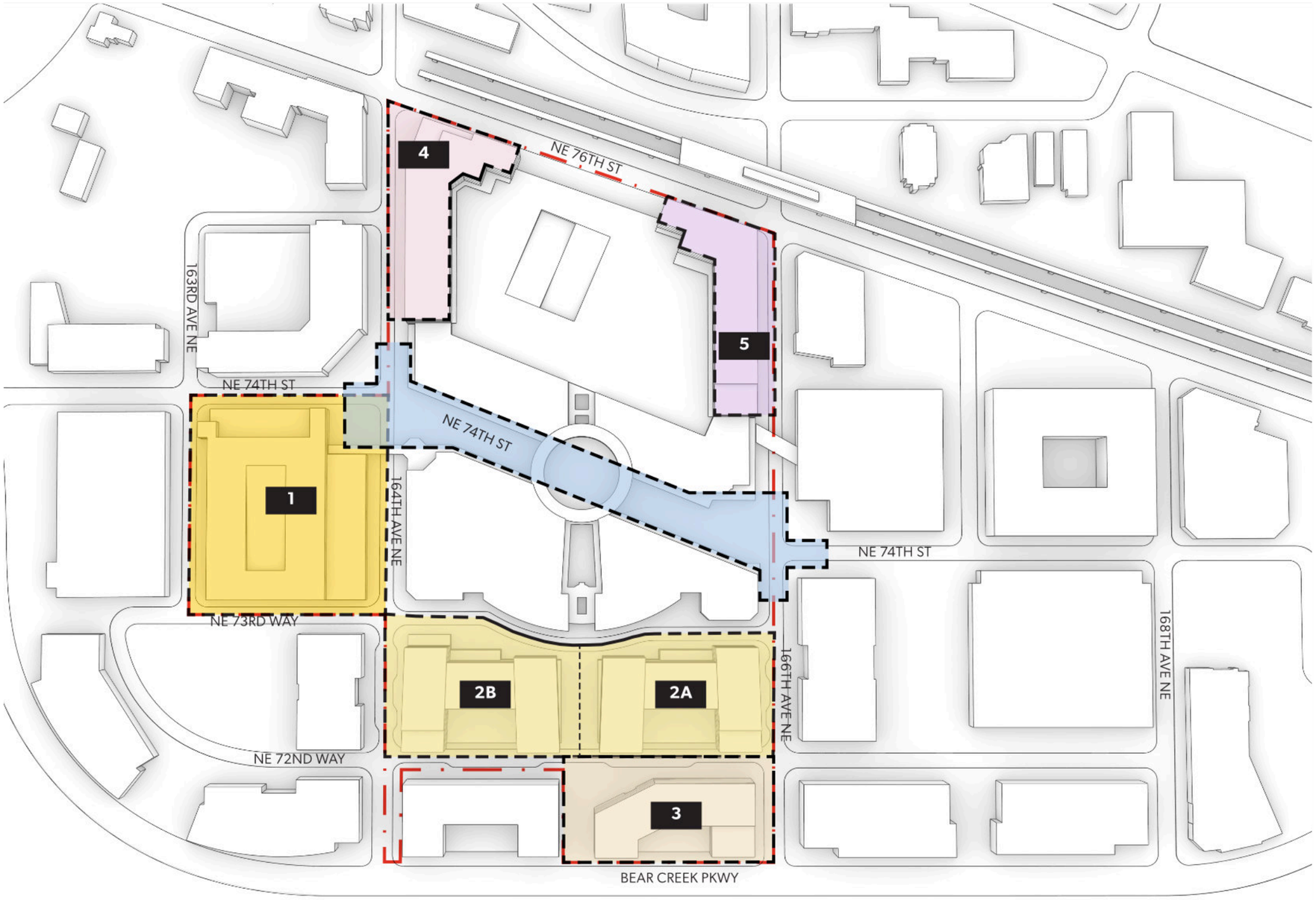
Landmark Tree (3:1) = N/A

Total Tree Required = 82

Actual Trees Provided = 82

SECTION 4 - SITE DEVELOPMENT

OVERALL PHASING PLAN



PHASING PLAN
NTS

LEGEND

PROJECT BOUNDARY

PHASE 1
EXISTING PARKING GARAGE ADDITION
AREA: 123,430 SF (2.83 Acres)

PHASE 2
MIXED-USE RESIDENTIAL OR OFFICE
AREA: 141,554 SF (3.25 Acres)

PHASE 3
RESIDENTIAL
AREA: 50,894 SF (1.17 Acres)

PHASE 4
MIXED-USE RESIDENTIAL
AREA: 39,210 SF (0.90 Acres)

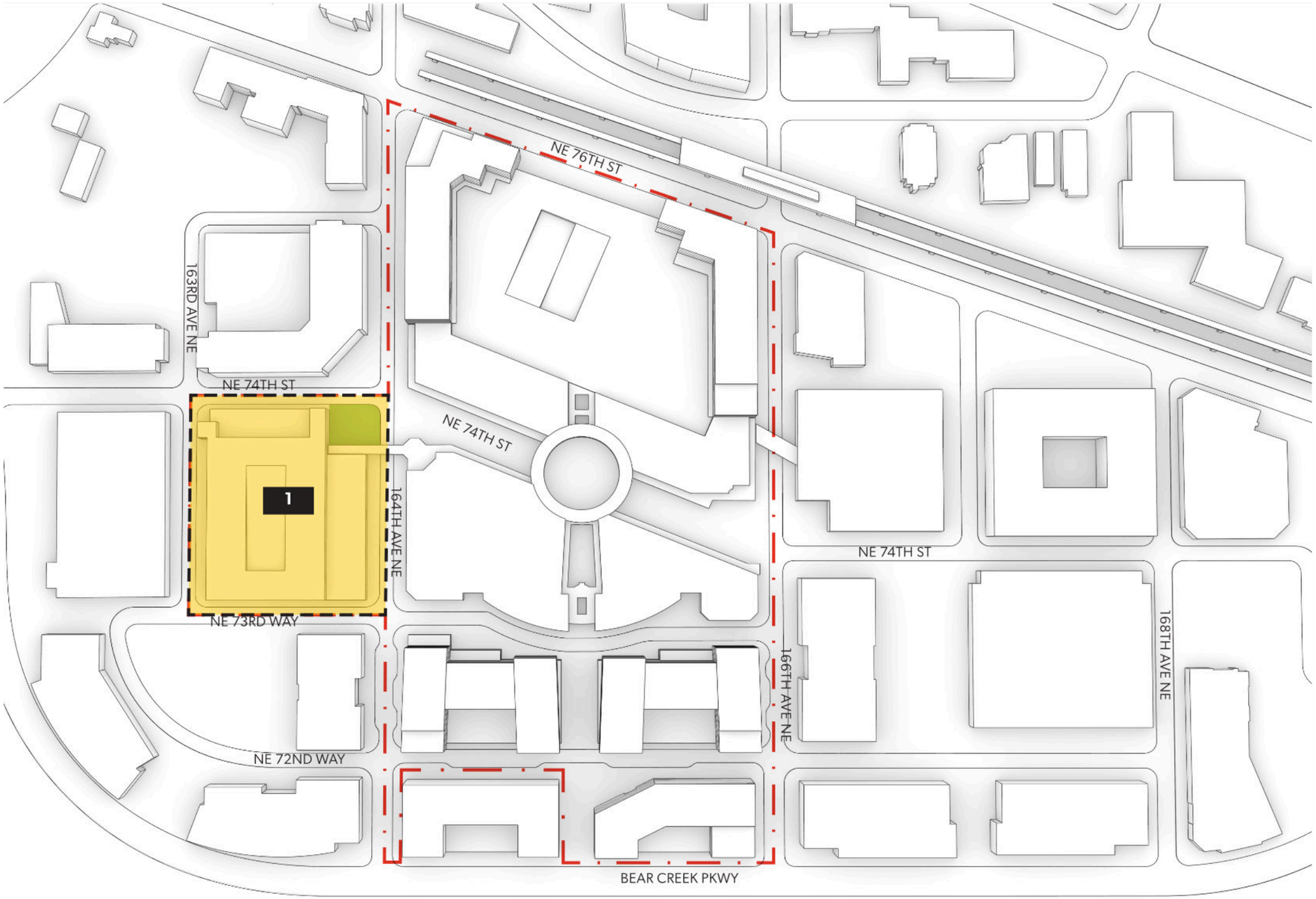
PHASE 5
MIXED-USE RESIDENTIAL
AREA: 35,922 SF (0.82 Acres)

74TH STREET PLAZA AND INTERSECTION IMPROVEMENTS TO BE COMPLETED WITH THE EARLY OF PHASE 4 OR PHASE 5 MIXED-USE RESIDENTIAL.

PHASING NOTES:

- Phasing may occur be out of numbered sequence.
- Public benefits will be provided with associated phase per this document and the development agreement.
- See Open Space Section 3, for precedent images of proposed Enhanced Pedestrian-Oriented Design, landscape areas, and streetscape improvements.

PHASING PLAN - PHASE 1



PHASING PLAN - PHASE 1
NTS

LEGEND

PROPOSED MPD BOUNDARY

PHASE 1
PARKING GARAGE

PHASE 1
NEW/MODIFIED GROUND LEVEL PUBLIC OPEN SPACE

(For Summary of New/Modified Public Open Space, Please see Section 2 Open Space page)

SUMMARY:

PROPOSED DEVELOPMENT

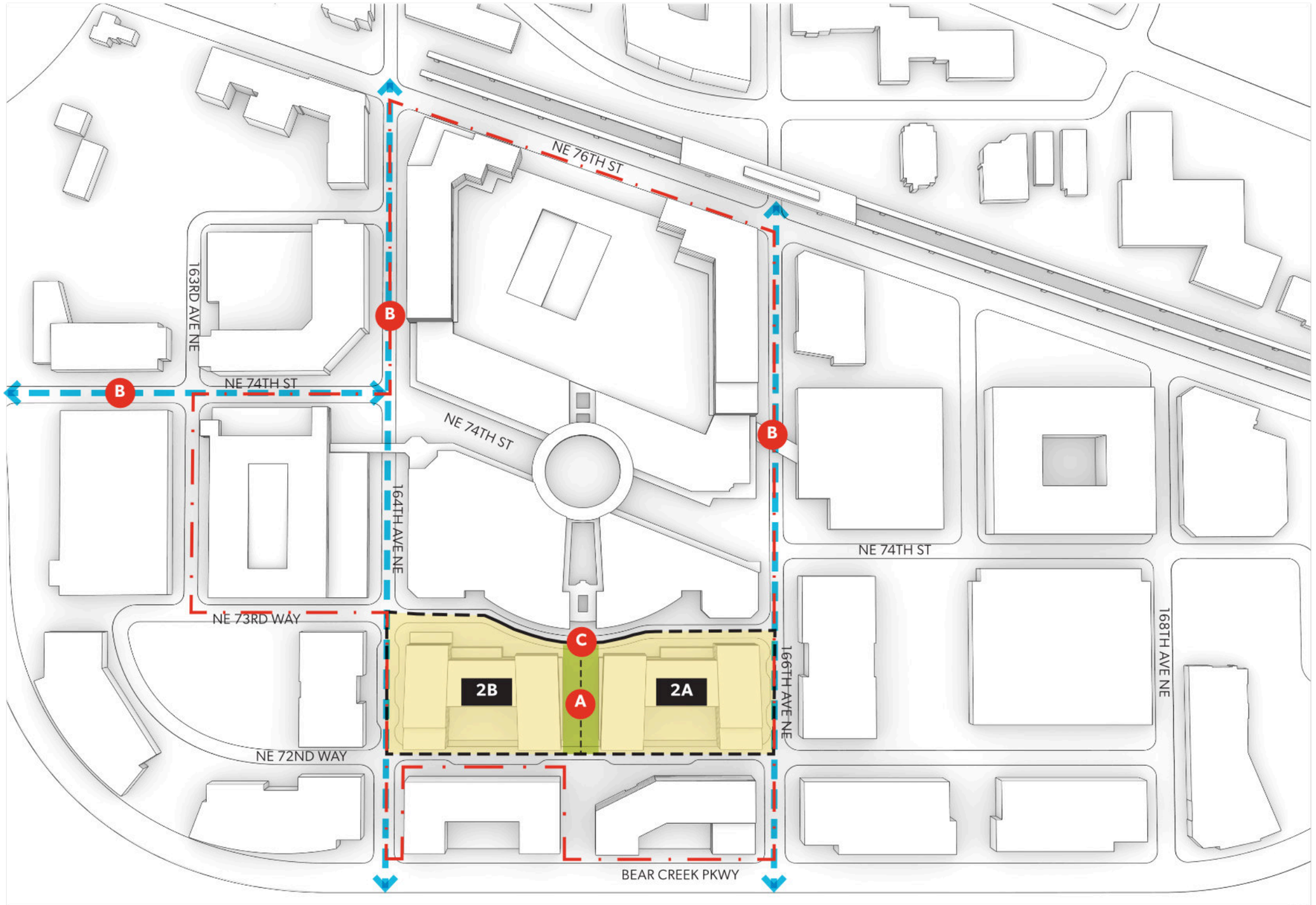
Two Story Addition to existing mixed-use parking garage with approximately 316 new parking stalls to replace existing allocated surface level parking and allow for new development.

MITIGATION AND PUBLIC BENEFITS

Ground water aquifer impact mitigation

Note: see public benefits scorecard for full description.

PHASING PLAN - PHASE 2



PHASING PLAN - PHASE 2
NTS

LEGEND

- PROPOSED MPD BOUNDARY
- PROPOSED BIKE LANES
- **PHASE 2** RESIDENTIAL/OFFICE
- **PHASE 2** PROPOSED GROUND LEVEL PUBLIC OPEN SPACE

(For Summary of New/Modified Public Open Space, Please see Section 2 Open Space page)

SUMMARY:

PROPOSED DEVELOPMENT

Two new 12 story mixed use building containing either residential units or office.

MITIGATION AND PUBLIC BENEFITS

- Affordable Housing
- Small and Local Retail
- Sustainability
- Ground water aquifer impact mitigation
- Additional Trees Provided - in excess of min. required
- Building Green Roofs
- Enhanced Pedestrian-Oriented Design

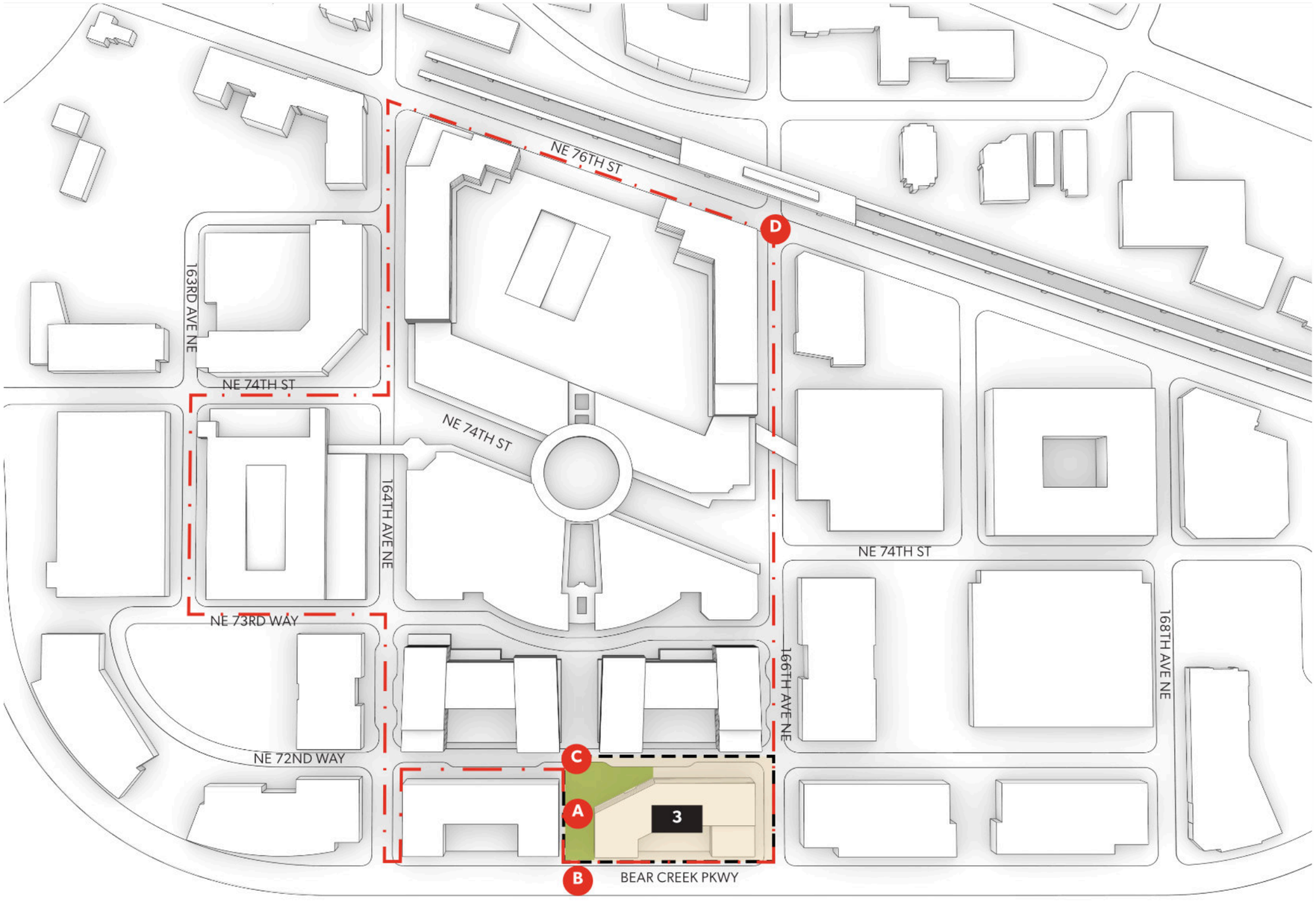
A. Publicly accessible linear plaza open space connecting NE 74th St with Bear Creek Parkway

B. Bike infrastructure and traffic calming at 164th and 166th and 74th St to connect to existing bike lanes.

C. Pedestrian crossing and intersection improvements

Note: see public benefits scorecard for full description.

PHASING PLAN - PHASE 3



PHASING PLAN - PHASE 3
NTS

LEGEND

PROPOSED MPD BOUNDARY

PHASE 3
RESIDENTIAL

PHASE 3
NEW/MODIFIED GROUND LEVEL PUBLIC OPEN SPACE
(For Summary of New/Modified Public Open Space, Please see Section 2 Open Space page)

SUMMARY:

PROPOSED DEVELOPMENT

New seven story residential building

MITIGATION AND PUBLIC BENEFITS

Affordable Housing

Small and Local Retail

Sustainability

Ground water aquifer impact mitigation

Additional Trees Provided - in excess of min. required

Building Green Roofs

Enhanced Pedestrian-Oriented Design

A Publicly accessible linear plaza open space connecting NE 74th St with Bear Creek Parkway

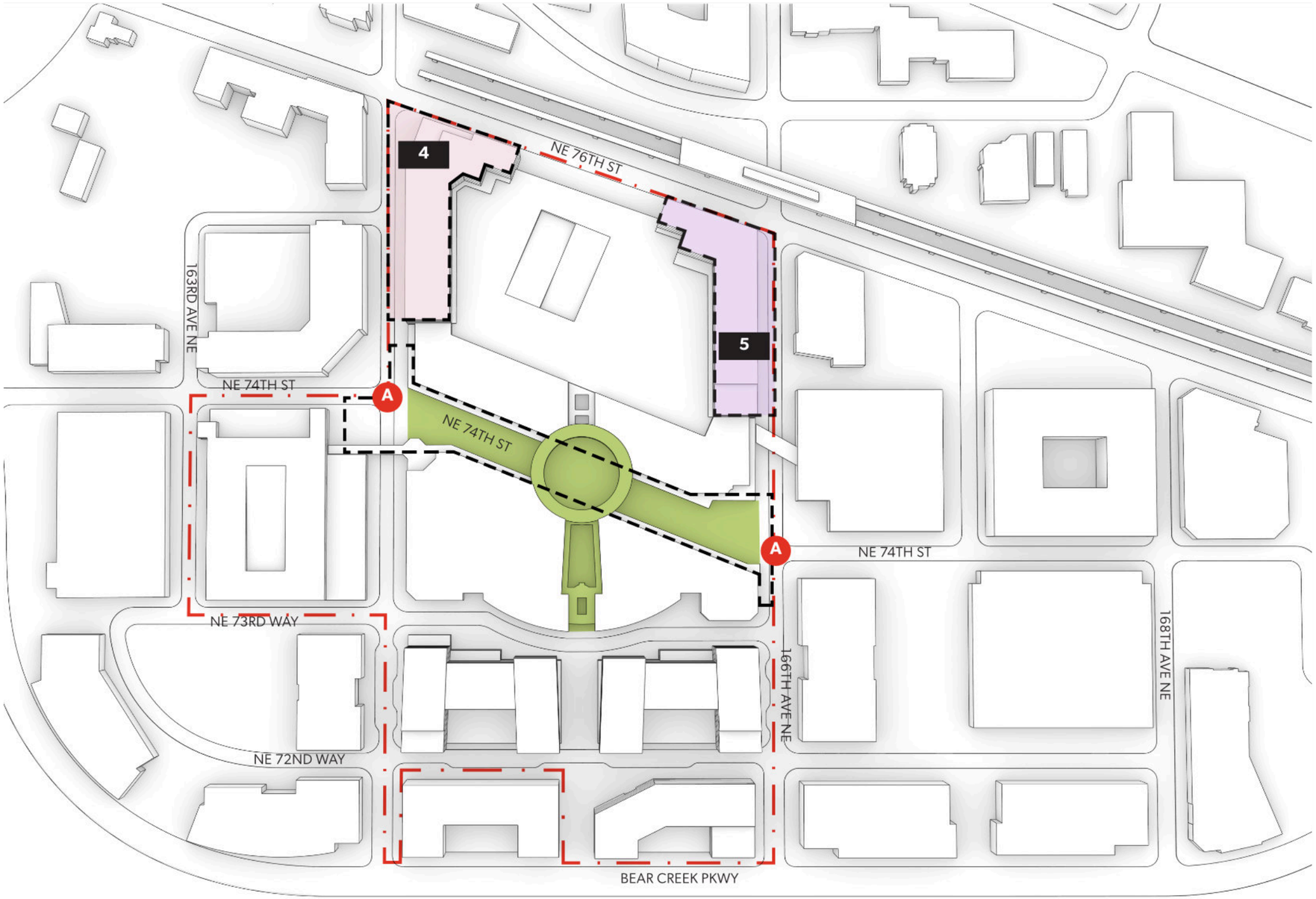
B Bear Creek Parkway Mid-block Crossing

C Pedestrian crossing and intersection improvements

D Pedestrian crossing and intersection improvements at 76th and 166th Street

Note: see public benefits scorecard for full description.

PHASING PLAN - PHASE 4 AND 5



PHASING PLAN - PHASE 4 AND 5
NTS

LEGEND

PROPOSED MPD BOUNDARY

PHASE 4
RESIDENTIAL

PHASE 5
RESIDENTIAL

NEW/MODIFIED GROUND LEVEL PUBLIC OPEN SPACE

(For Summary of New/Modified Public Open Space, Please see Section 2 Open Space page)

74TH STREET PLAZA AND INTERSECTION IMPROVEMENTS TO BE COMPLETED WITH PHASE

SUMMARY:

PROPOSED DEVELOPMENT

Two seven story mixed-use residential buildings with ground floor commercial. New streetscape and pedestrian plaza at 74th St.

MITIGATION AND PUBLIC BENEFITS

Affordable Housing

Small and Local Retail

Sustainability

Ground water aquifer impact mitigation

74th Street Improvements Plaza and Pedestrian improvements

Additional Trees Provided - in excess of min. required

Building Green Roofs

Enhanced Pedestrian-Oriented Design

A Pedestrian crossing and intersection improvements

Note: see public benefits scorecard for full description.

CONCEPTUAL TRANSPORTATION PLAN | PHASE 1

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- GARAGE INGRESS ROUTE
- GARAGE EGRESS ROUTE
- GARAGE ENTRY POINT
- ROAD CROSS SECTION
- SIGHT TRIANGLE

CONCEPTUAL TRANSPORTATION PLAN | PHASE 1

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL GRADING PLAN | PHASE 1

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- 337 PROPOSED GRADES
- 320 EXISTING GRADES
- 7.3% PROPOSED SLOPE

NOTE:
All Sidewalk Cross Slopes Shall Target 1.5%, with 2.0% MAX for ADA Compliance

CONCEPTUAL GRADING PLAN | PHASE 1

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL STORMWATER PLAN | PHASE 1

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING STORM TO REMAIN
- EXISTING STORM TO REMOVE
- PROPOSED STORM
- EX 12" PVC — NEW/PROPOSED DIAMETER, PIPE MATERIAL

* Pollution Generating Impervious Surface:
Provided Enhanced Water Quality, Direct Discharge to Smmamish River via Existing Stormwater Ponds

** Non-pollution generating impervious surface (ie roof areas) to infiltrated to maximum extent feasible. Overflow to Direct Discharge to Sammamish River via Existing Stormwater Ponds

CONCEPTUAL STORMWATER PLAN | PHASE 1

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

Exhibit C

CONCEPTUAL SEWER PLAN | PHASE 1

LEGEND

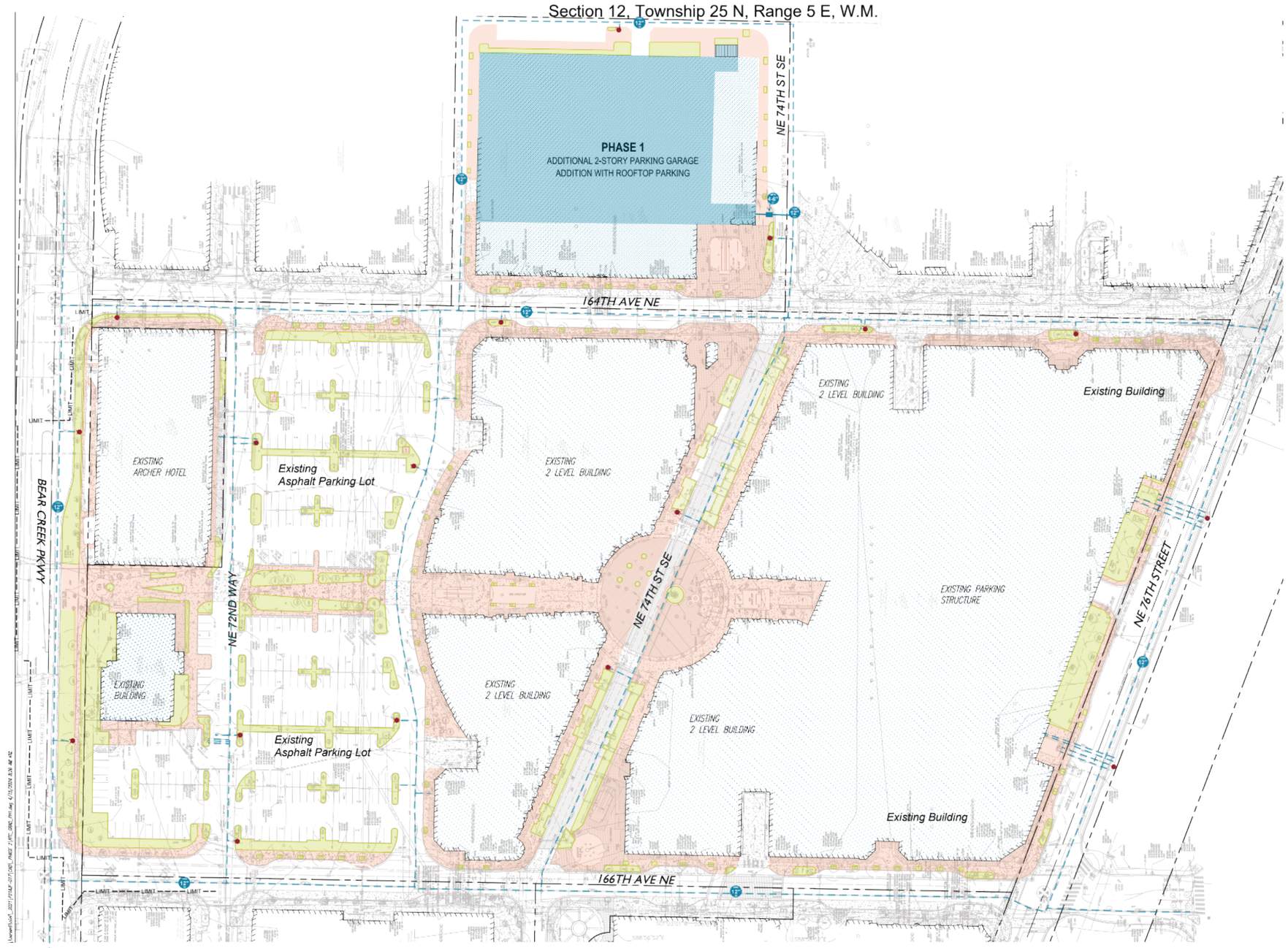
- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING SEWER TO REMAIN
- EXISTING SEWER TO REMOVE
- PROPOSED SEWER
- NEW/PROPOSED
- DIAMETER
- PIPE MATERIAL

EX 8'' PVC

CONCEPTUAL SEWER PLAN | PHASE 1

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL WATER PLAN | PHASE 1



LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING WATER TO REMAIN
- EXISTING WATER TO REMOVE
- PROPOSED WATER
- FIRE INFRASTRUCTURE
- INSTALLATION YEAR/PHASE (2000 / 12'' / DI)
- PIPE MATERIAL

CONCEPTUAL WATER PLAN | PHASE 1

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

FIRE ACCESS PLAN | PHASE 1

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- REMOVED FIRE HYDRANT
- EMERGENCY VEHICLE ACCESS (SEE ROW & EASEMENT PLAN)
- EXISTING FIRE HYDRANT 150' RADIUS
- PROPOSED FIRE HYDRANT 150' RADIUS

FIRE ACCESS PLAN | PHASE 1

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL TRANSPORTATION PLAN | PHASE 2

Section 12, Township 25 N, Range 5 E, W.M.

LEGEND

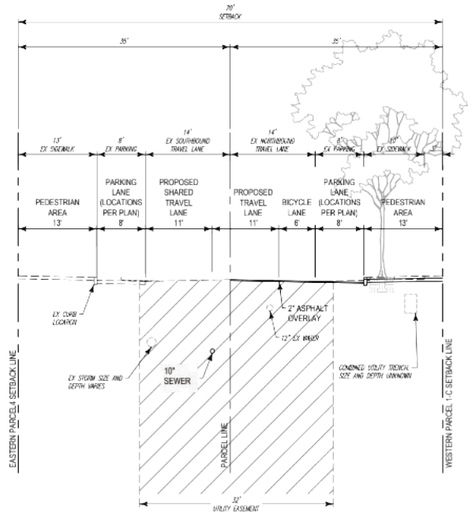
- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- GARAGE INGRESS ROUTE
- GARAGE EGRESS ROUTE
- GARAGE ENTRY POINT
- ROAD CROSS SECTION
- SIGHT TRIANGLE

CONCEPTUAL TRANSPORTATION PLAN | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

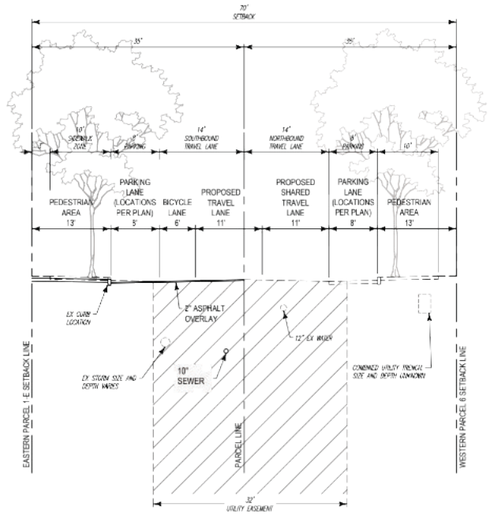
CONCEPTUAL ROADWAY SECTIONS | PHASE 2

Section 12, Township 25 N, Range 5 E, W.M.



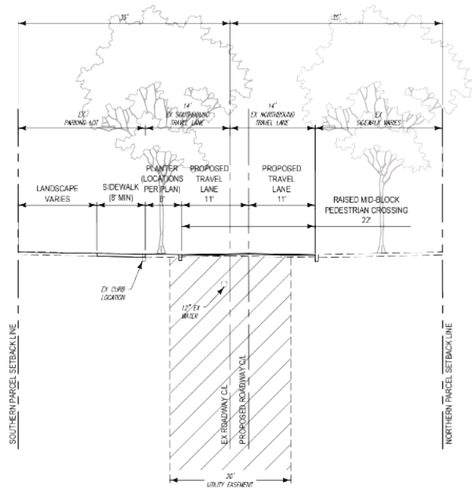
Section A-A: 164th Ave NE Section (Between NE 72nd Way and NE 73rd Way)

Scale 1"=10'



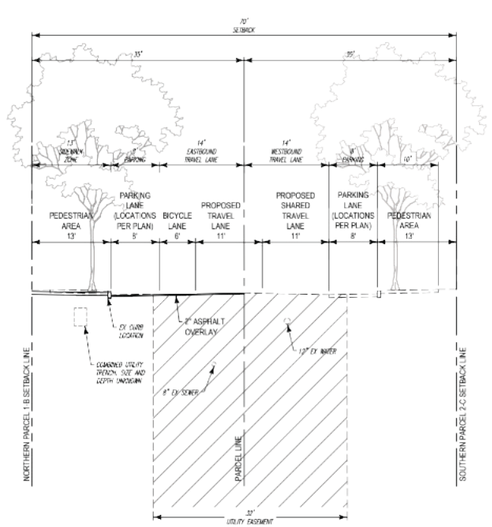
Section B-B: 166th Ave NE Section (Between NE 72nd Way and NE 76th Street)

Scale 1"=10'



Section C-C: NE 73rd Way Section (At Raised Mid-Block Crossing)

Scale 1"=10'



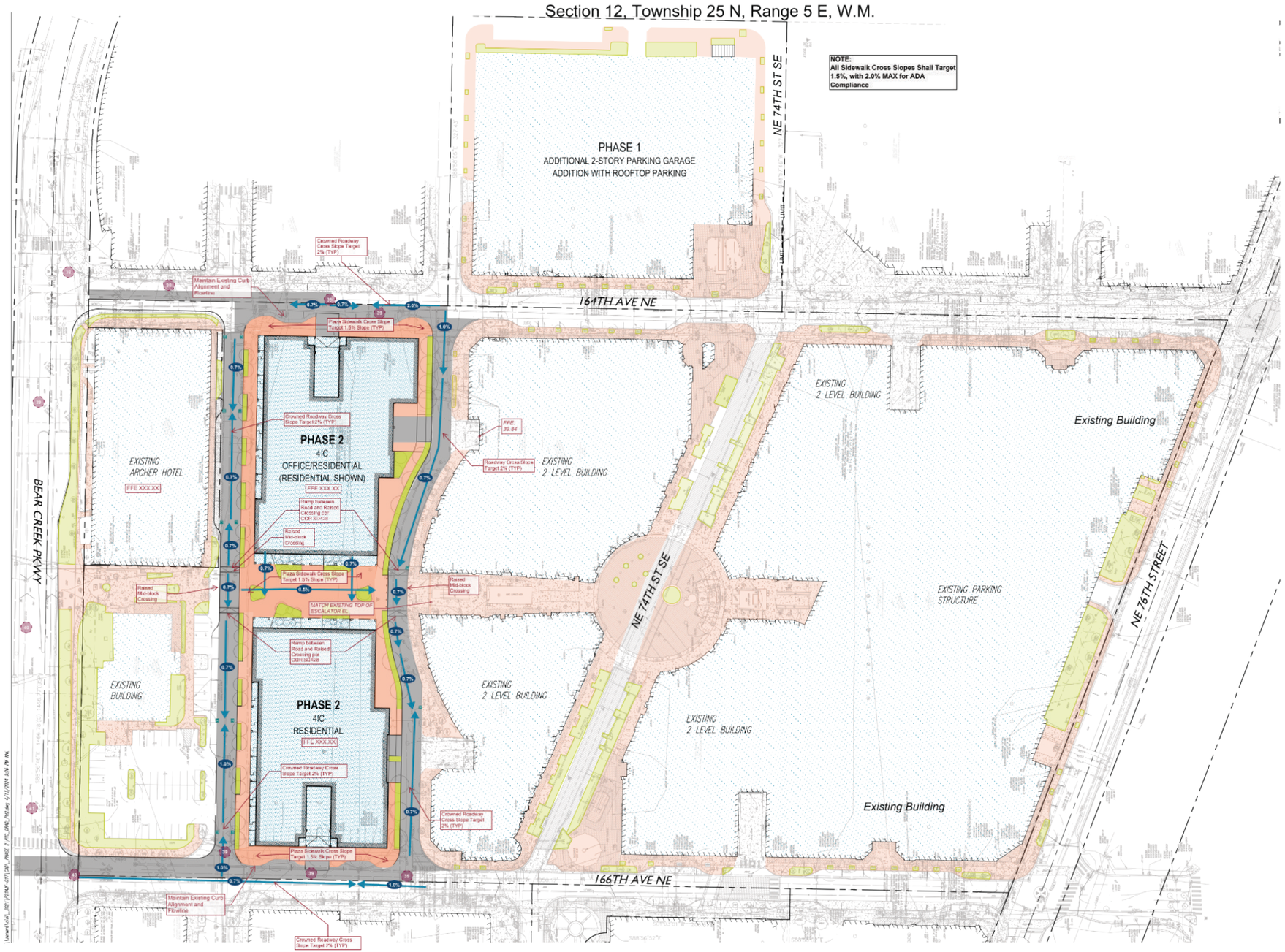
Section D-D: NE 74th Street SE (Between 164th Ave NE and Bear Creek Parkway)

Scale 1"=10'

CONCEPTUAL ROADWAY SECTIONS | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL GRADING PLAN | PHASE 2



LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- 337 PROPOSED GRADES
- 320 EXISTING GRADES
- 7.3% PROPOSED SLOPE

NOTE:
All Sidewalk Cross Slopes Shall Target 1.5%, with 2.0% MAX for ADA Compliance

CONCEPTUAL GRADING PLAN | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

Exhibit C

CONCEPTUAL STORMWATER PLAN | PHASE 2

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING STORM TO REMAIN
- EXISTING STORM TO REMOVE
- PROPOSED STORM
- NEW/PROPOSED
- DIAMETER
- PIPE MATERIAL

EX 12'' PVC

* Pollution Generating Impervious Surface:
Provided Enhanced Water Quality, Direct Discharge to Smmamish River via Existing Stormwater Ponds

** Non-pollution generating impervious surface (ie roof areas) to infiltrated to maximum extent feasible. Overflow to Direct Discharge to Sammamish River via Existing Stormwater Ponds

CONCEPTUAL STORMWATER PLAN | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL SEWER PLAN | PHASE 2

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING SEWER TO REMAIN
- EXISTING SEWER TO REMOVE
- PROPOSED SEWER
- NEW/PROPOSED
- DIAMETER
- PIPE MATERIAL

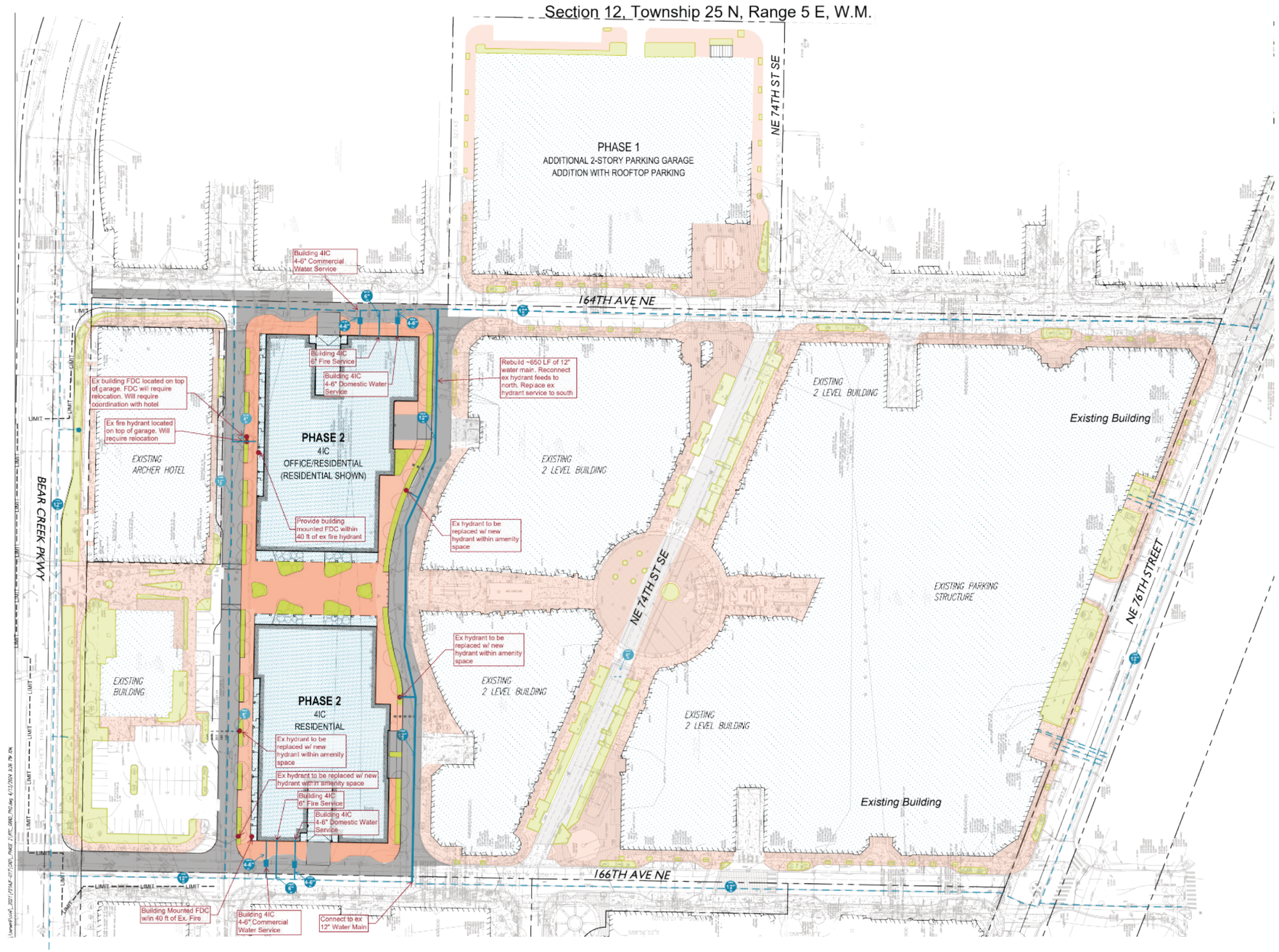
EX 8'' PVC

Note: Sewer Additional Connection Charges, in accordance with City of Redmond Resolution No. [insert number], must be paid to the City prior to connecting any new buildings to the water or sewer system.

CONCEPTUAL SEWER PLAN | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL WATER PLAN | PHASE 2



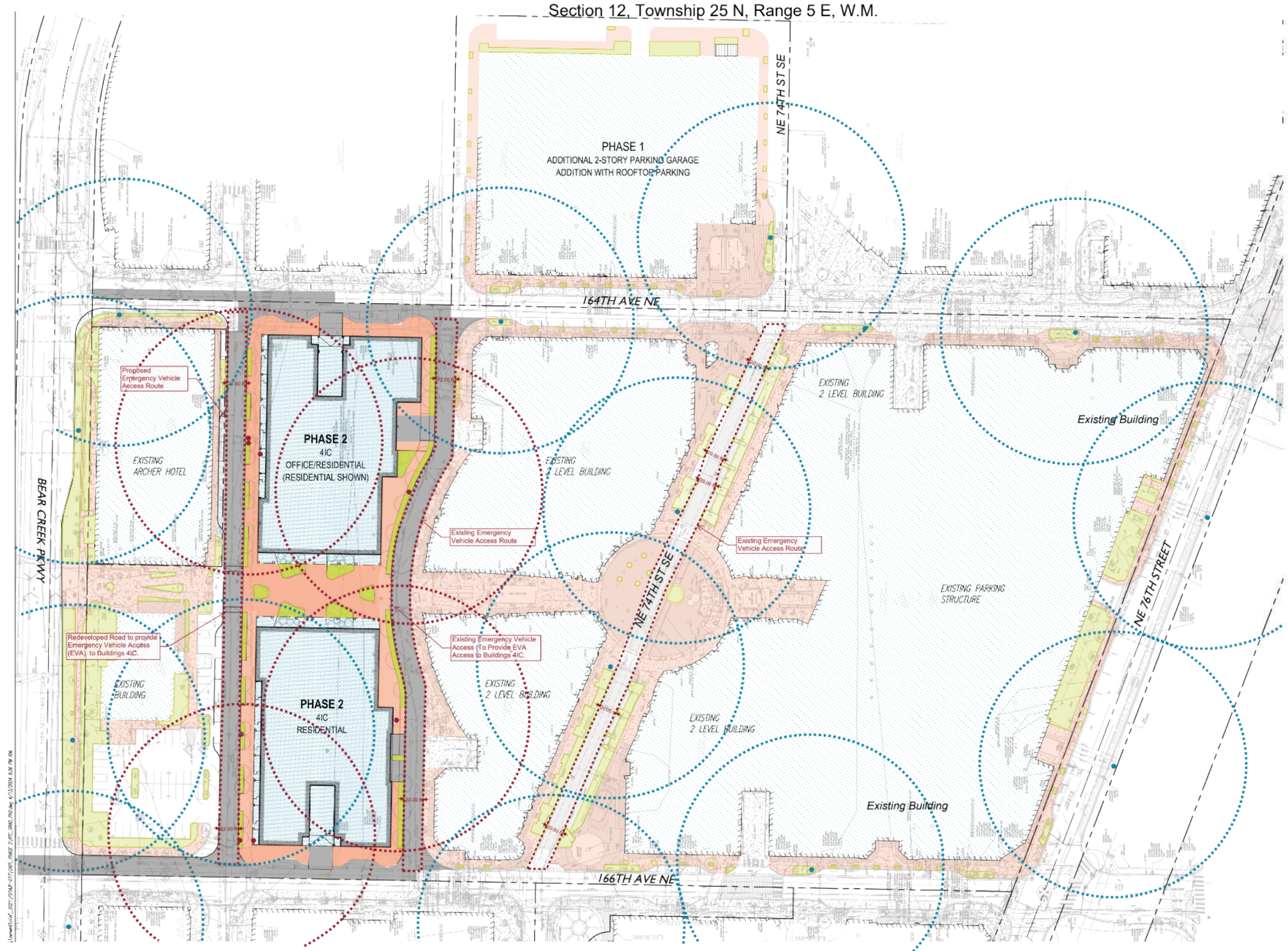
LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING WATER TO REMAIN
- EXISTING WATER TO REMOVE
- PROPOSED WATER
- FIRE INFRASTRUCTURE
- INSTALLATION YEAR/PHASE (2000 / 12" / DI)
- PIPE MATERIAL

CONCEPTUAL WATER PLAN | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

FIRE ACCESS PLAN | PHASE 2



LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
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- REMOVED FIRE HYDRANT
- EMERGENCY VEHICLE ACCESS (SEE ROW & EASEMENT PLAN)
- EXISTING FIRE HYDRANT 150' RADIUS
- PROPOSED FIRE HYDRANT 150' RADIUS

FIRE ACCESS PLAN | PHASE 2

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL TRANSPORTATION PLAN | PHASE 3

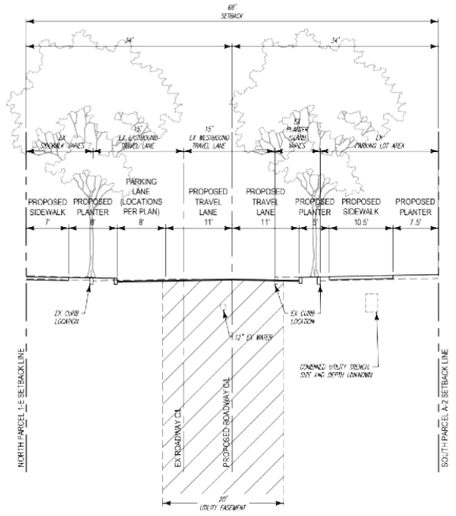
LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- GARAGE INGRESS ROUTE
- GARAGE EGRESS ROUTE
- GARAGE ENTRY POINT
- ROAD CROSS SECTION
- SIGHT TRIANGLE

CONCEPTUAL TRANSPORTATION PLAN | PHASE 3

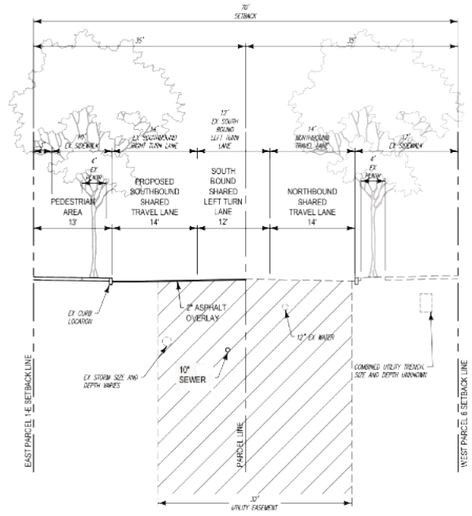
NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL ROADWAY SECTIONS | PHASE 3



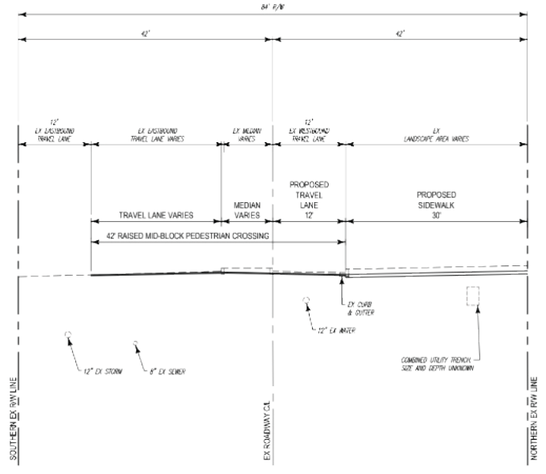
Section A-A: NE 72nd Way Section

Scale 1"=10'



Section B-B: 166th Ave NE Section (South of NE 72nd Way)

Scale 1"=10'



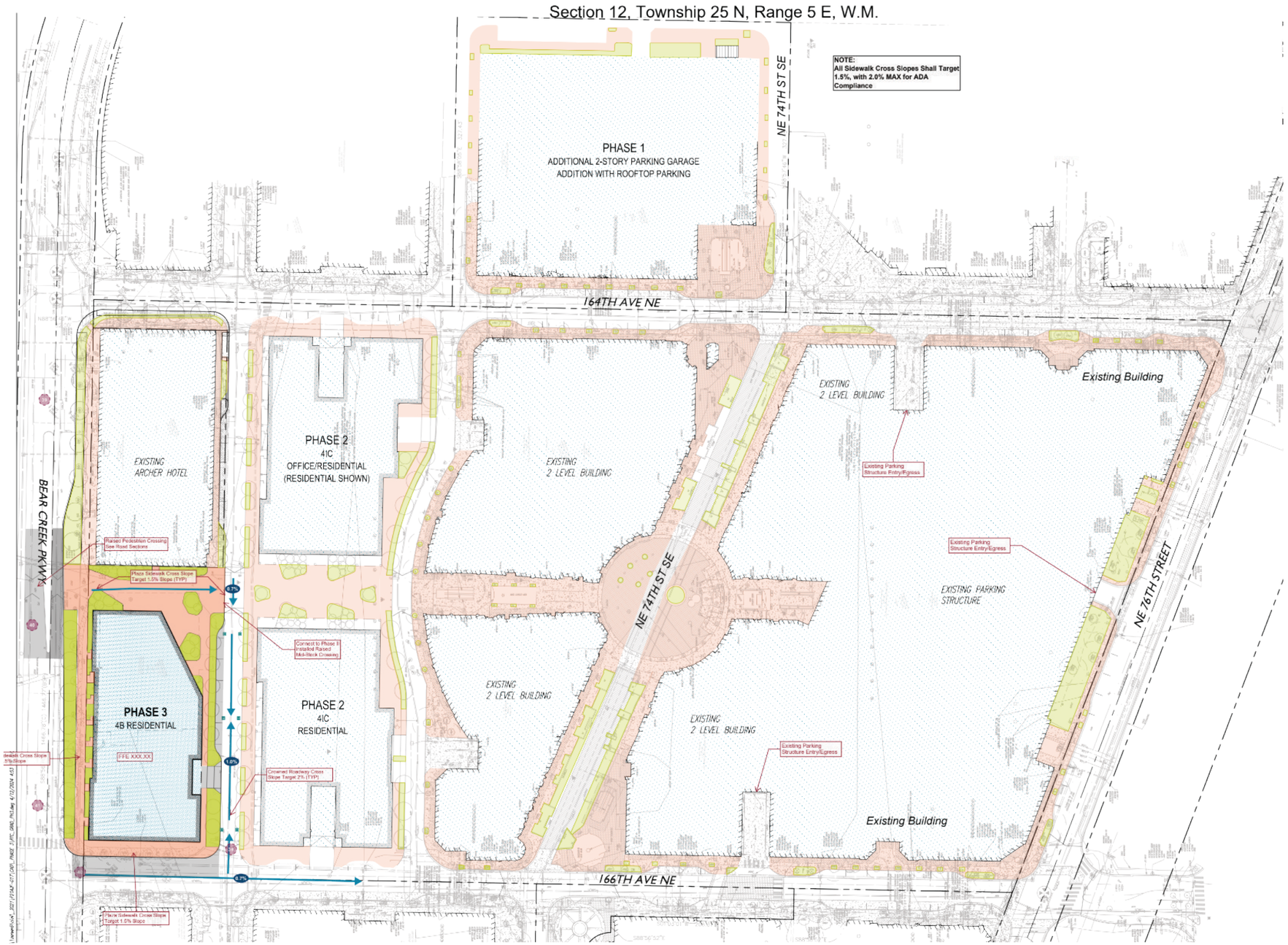
Section C-C: Bear Creek Parkway Crossing Section

Scale 1"=10'

CONCEPTUAL ROADWAY SECTIONS | PHASE 3

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL GRADING PLAN | PHASE 3



LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- 337 PROPOSED GRADES
- 320 EXISTING GRADES
- 7.3% PROPOSED SLOPE

NOTE:
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CONCEPTUAL GRADING PLAN | PHASE 3

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL STORMWATER PLAN | PHASE 3

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING STORM TO REMAIN
- EXISTING STORM TO REMOVE
- PROPOSED STORM
- NEW/PROPOSED
- DIAMETER
- PIPE MATERIAL

EX 12'' PVC

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CONCEPTUAL STORMWATER PLAN | PHASE 3

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

Exhibit C

CONCEPTUAL SEWER PLAN | PHASE 3

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING SEWER TO REMAIN
- EXISTING SEWER TO REMOVE
- PROPOSED SEWER
- NEW/PROPOSED
- DIAMETER
- PIPE MATERIAL

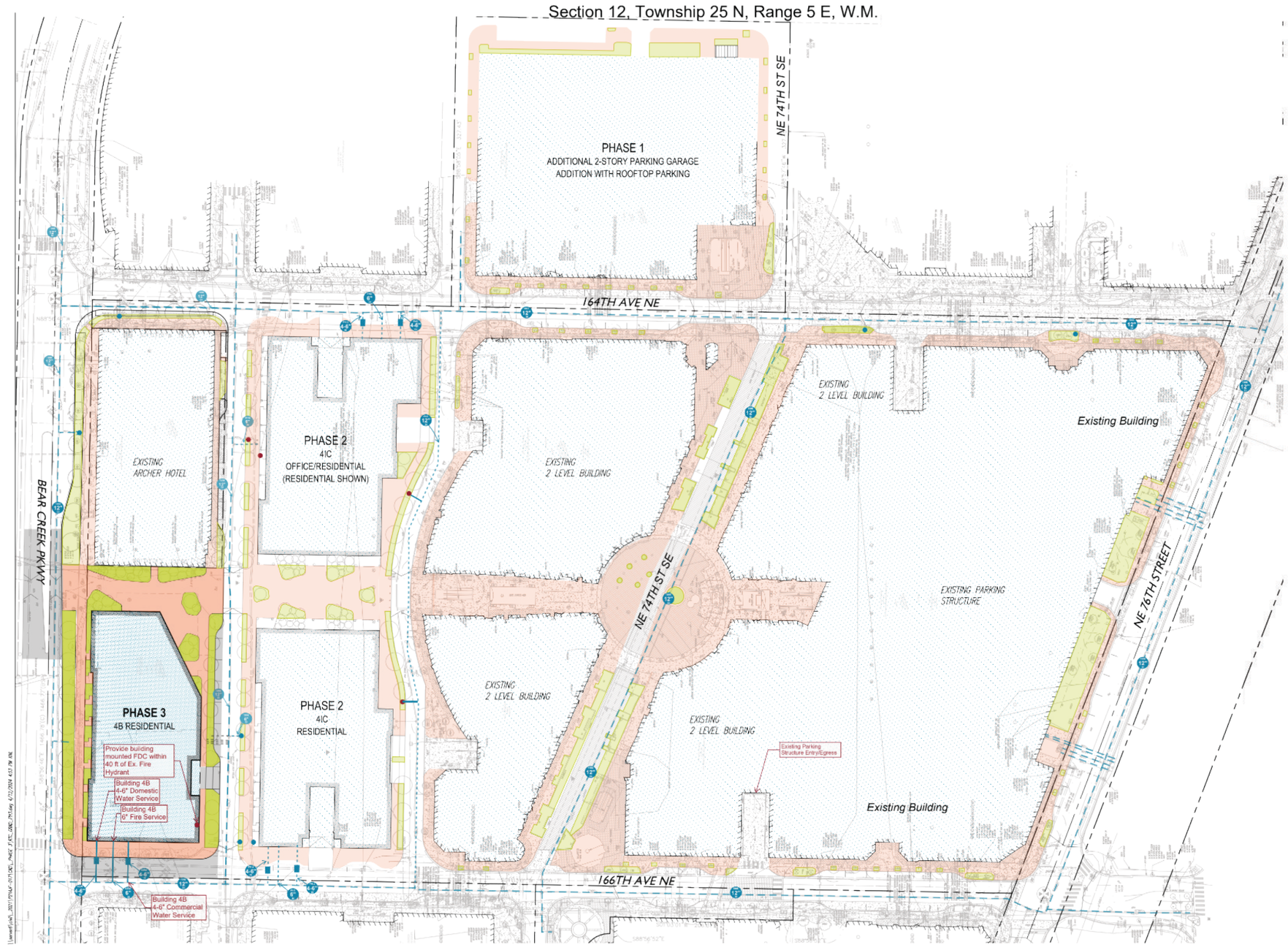
EX 8'' PVC

Note: Sewer Additional Connection Charges, in accordance with City of Redmond Resolution No. [insert number], must be paid to the City prior to connecting any new buildings to the water or sewer system.

CONCEPTUAL SEWER PLAN | PHASE 3

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL WATER PLAN | PHASE 3



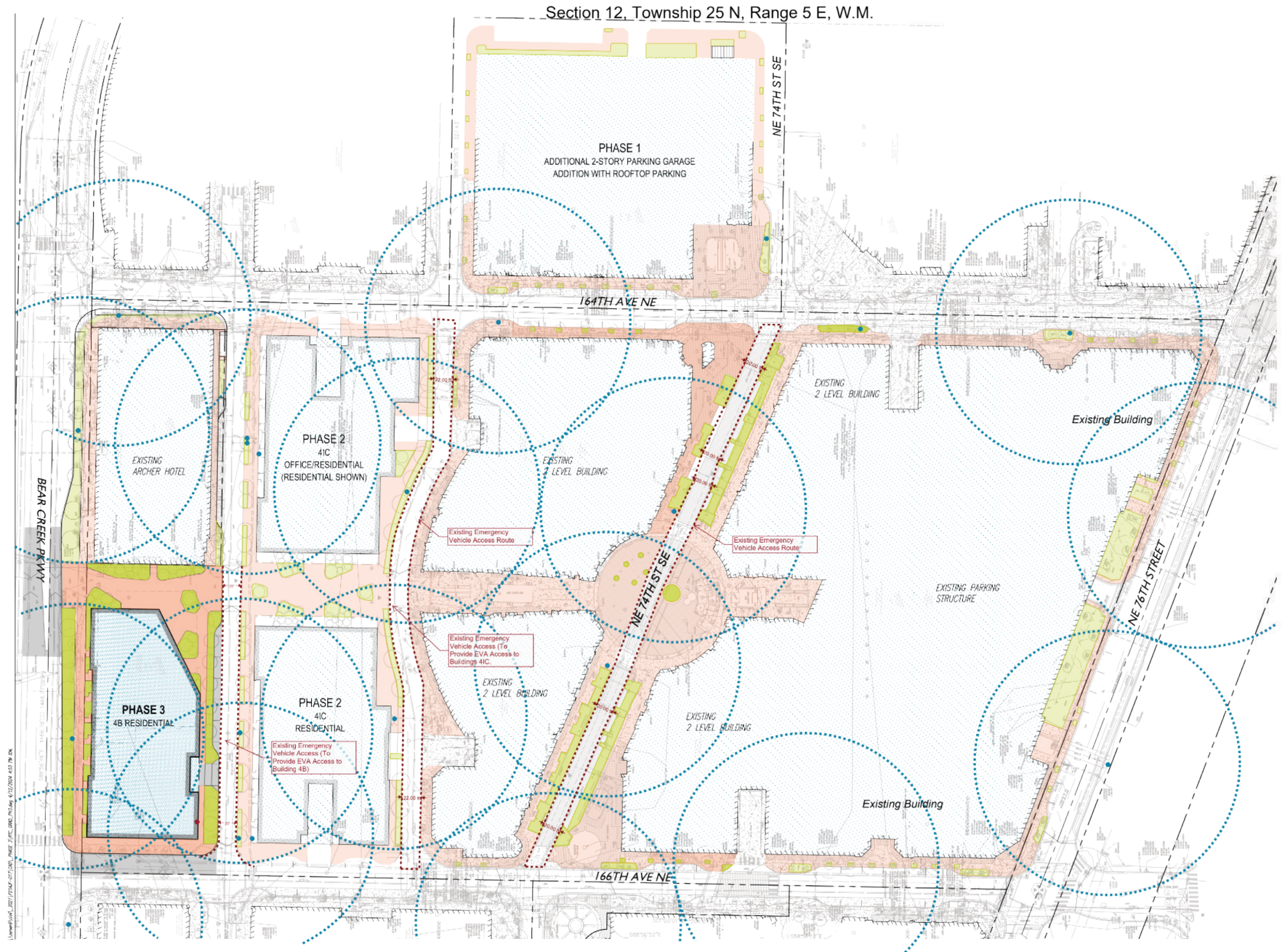
LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING WATER TO REMAIN
- EXISTING WATER TO REMOVE
- PROPOSED WATER
- FIRE INFRASTRUCTURE
- INSTALLATION YEAR/PHASE (2000 / 12'' / DI)
- PIPE MATERIAL

CONCEPTUAL WATER PLAN | PHASE 3

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

FIRE ACCESS PLAN | PHASE 3



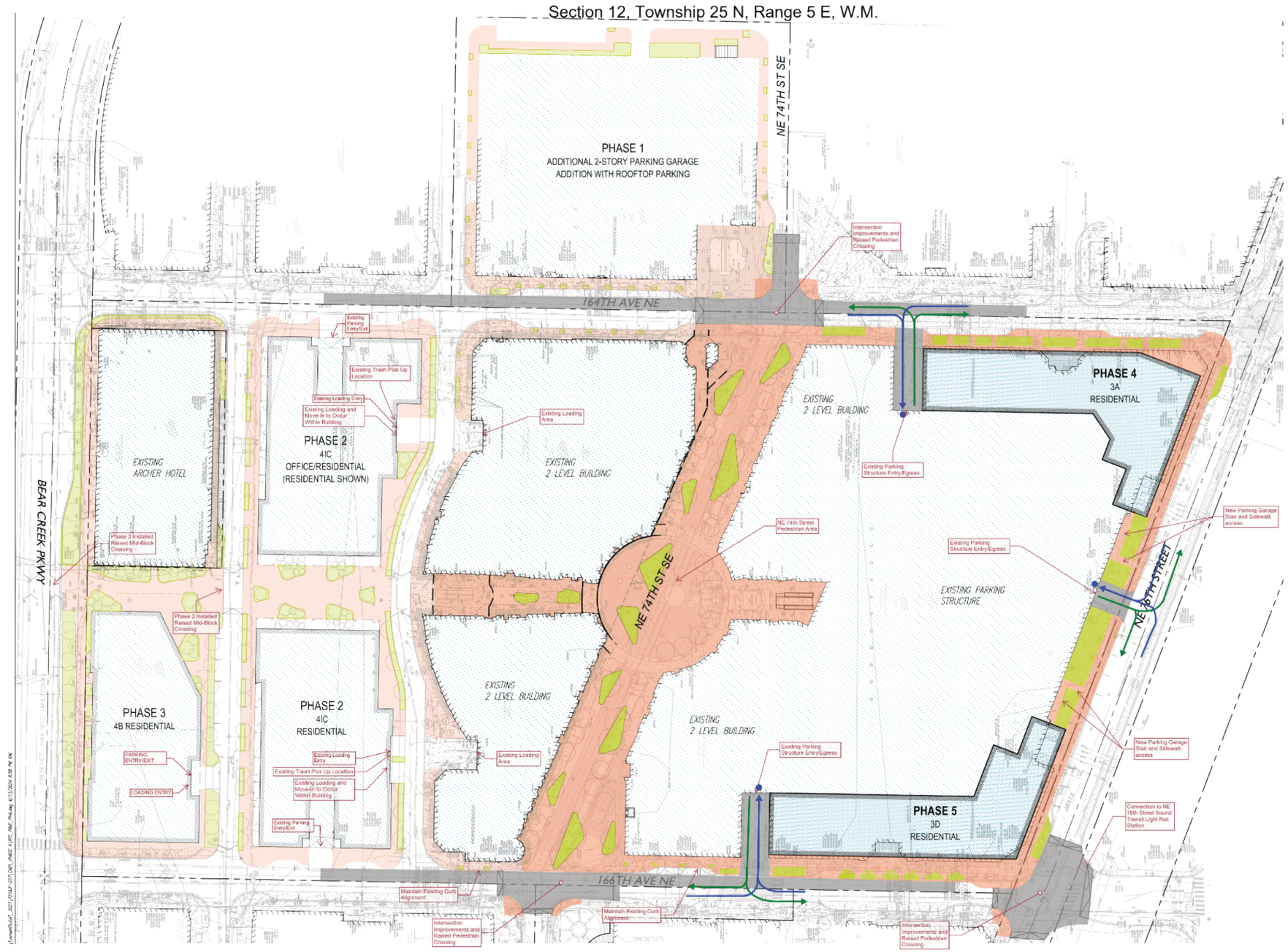
LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- REMOVED FIRE HYDRANT
- EMERGENCY VEHICLE ACCESS (SEE ROW & EASEMENT PLAN)
- EXISTING FIRE HYDRANT 150' RADIUS
- PROPOSED FIRE HYDRANT 150' RADIUS

FIRE ACCESS PLAN | PHASE 3

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL TRANSPORTATION PLAN | PHASE 4 AND 5



LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- GARAGE INGRESS ROUTE
- GARAGE EGRESS ROUTE
- GARAGE ENTRY POINT
- ROAD CROSS SECTION
- SIGHT TRIANGLE

CONCEPTUAL TRANSPORTATION PLAN | PHASE 4 AND 5

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL GRADING AND DRAINAGE PLAN | PHASE 4 AND 5

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- 337 PROPOSED GRADES
- 320 EXISTING GRADES
- 7.3% PROPOSED SLOPE

NOTE:
All Sidewalk Cross Slopes Shall Target 1.5%, with 2.0% MAX for ADA Compliance

CONCEPTUAL GRADING PLAN | PHASE 4 AND 5

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL STORMWATER PLAN | PHASE 4 AND 5

LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING STORM TO REMAIN
- EXISTING STORM TO REMOVE
- PROPOSED STORM
- NEW/PROPOSED
- DIAMETER
- PIPE MATERIAL

EX 12'' PVC

* Pollution Generating Impervious Surface:
Provided Enhanced Water Quality, Direct Discharge to Smmamish River via Existing Stormwater Ponds

** Non-pollution generating impervious surface (ie roof areas) to infiltrated to maximum extent feasible. Overflow to Direct Discharge to Sammamish River via Existing Stormwater Ponds

CONCEPTUAL STORMWATER PLAN | PHASE 4 AND 5
NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

Exhibit C

CONCEPTUAL SEWER PLAN | PHASE 4 AND 5

LEGEND

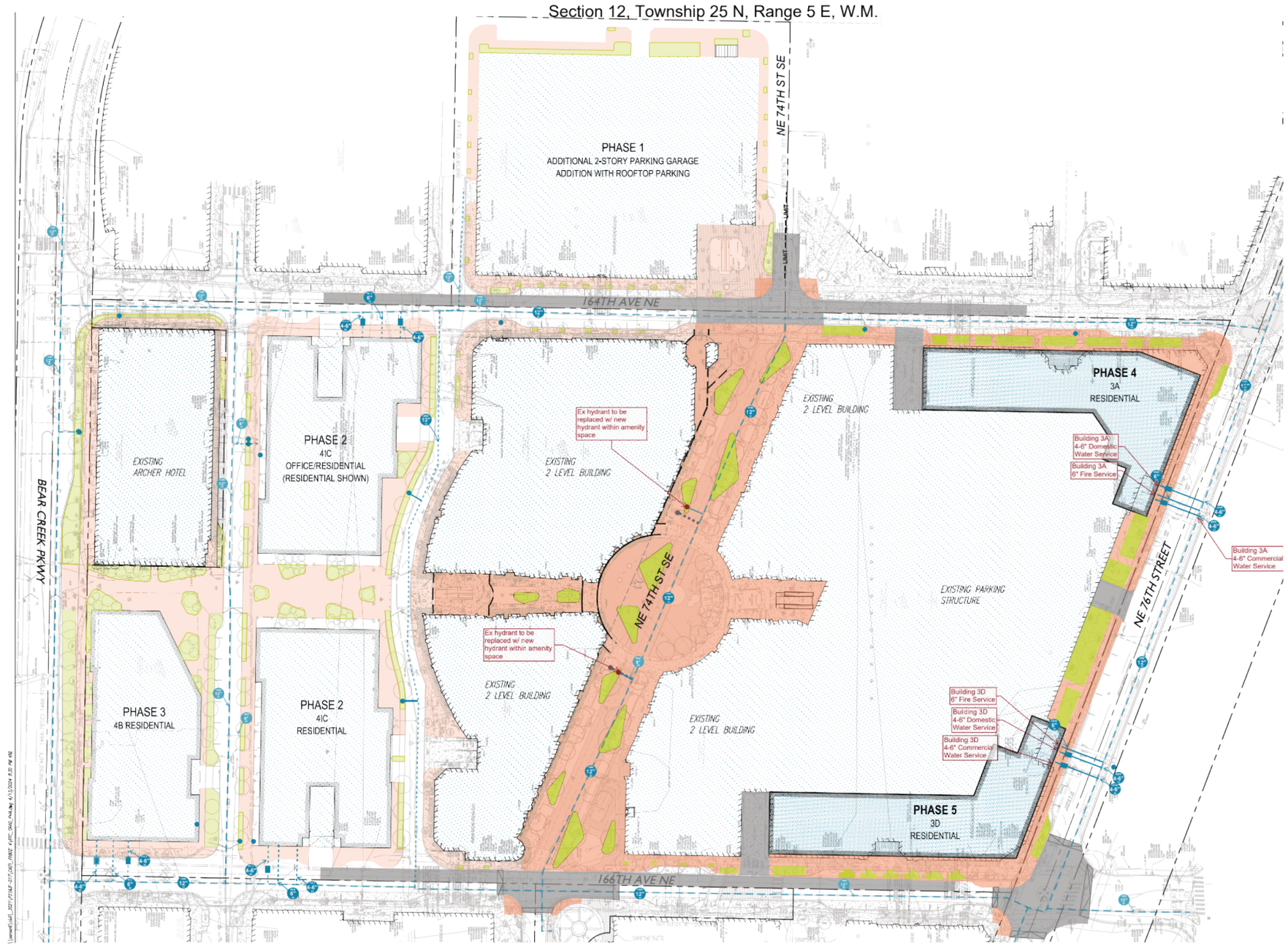
- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING SEWER TO REMAIN
- EXISTING SEWER TO REMOVE
- PROPOSED SEWER
- EX 8" PVC — NEW/PROPOSED DIAMETER, PIPE MATERIAL

Note: Sewer Additional Connection Charges, in accordance with City of Redmond Resolution No. [insert number], must be paid to the City prior to connecting any new buildings to the water or sewer system.

CONCEPTUAL SEWER PLAN | PHASE 4 AND 5

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

CONCEPTUAL WATER PLAN | PHASE 4 AND 5



LEGEND

- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING WATER TO REMAIN
- EXISTING WATER TO REMOVE
- PROPOSED WATER
- FIRE INFRASTRUCTURE
- INSTALLATION YEAR/PHASE (2000 / 12" DI)
- PIPE MATERIAL

CONCEPTUAL WATER PLAN | PHASE 4 AND 5

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

FIRE ACCESS PLAN | PHASE 4 AND 5

LEGEND

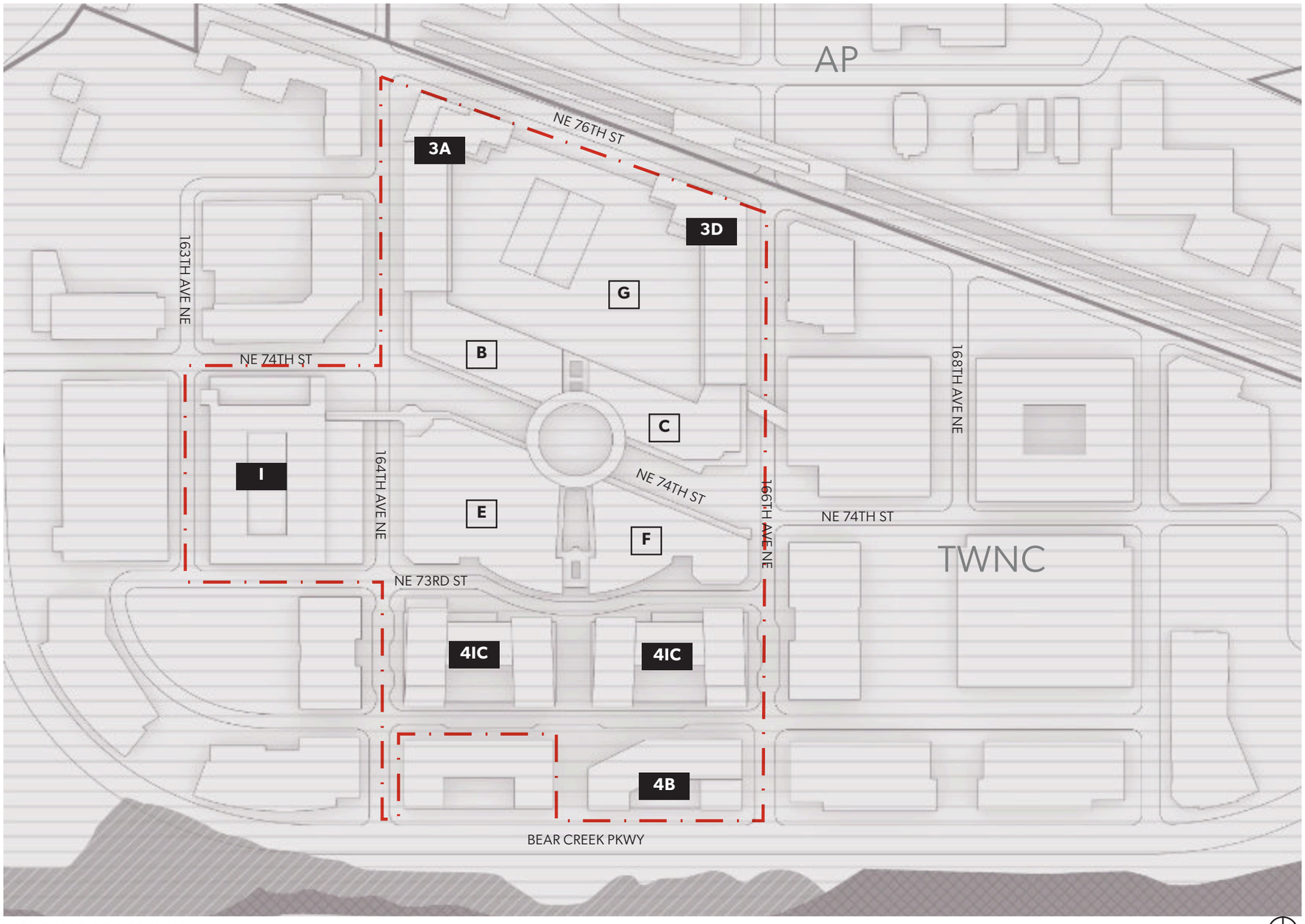
- PROPERTY LINE
- EXISTING/PROPOSED BUILDING
- EXISTING/PROPOSED ROAD
- EXISTING/PROPOSED WALKWAY
- EXISTING/PROPOSED LANDSCAPING
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- REMOVED FIRE HYDRANT
- EMERGENCY VEHICLE ACCESS (SEE ROW & EASEMENT PLAN)
- EXISTING FIRE HYDRANT 150' RADIUS
- PROPOSED FIRE HYDRANT 150' RADIUS

FIRE ACCESS PLAN | PHASE 4 AND 5

NOT TO SCALE - PLANS INCLUDED FOR REFERENCE ONLY, SEE CIVIL IMPROVEMENT PLANS FOR SCALED DRAWINGS

SECTION 5 - APPENDIX

PUBLIC NOTICE SITE PLAN - REDMOND TOWN CENTER MPD



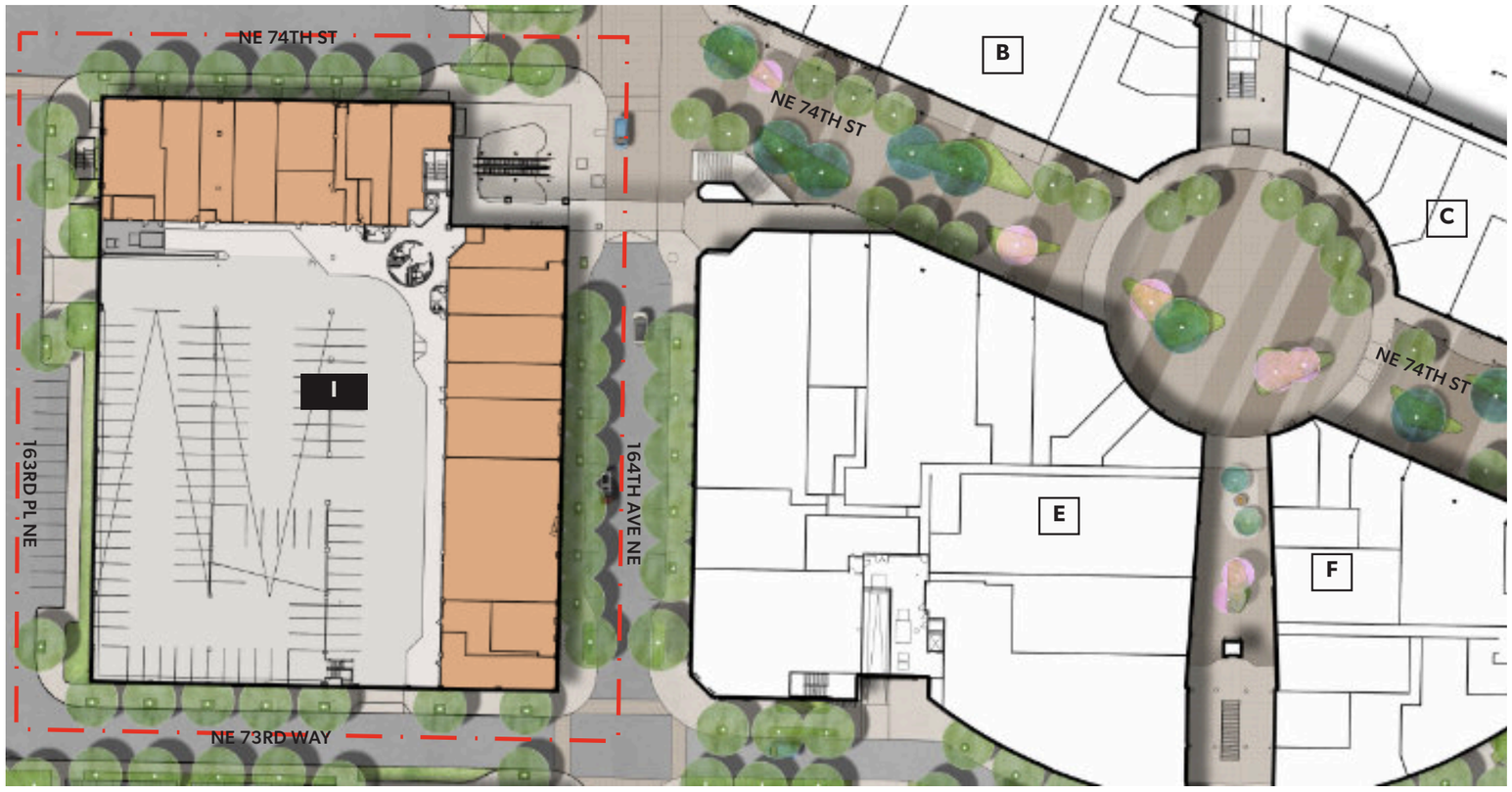
PUBLIC NOTICE SITE PLAN
NTS

LEGEND

- PROPOSED MPD BOUNDARY
  SITE AREA: 934,915 SQUARE FEET OR 21,4627 ACRES
- **3A** NEW BUILDING 3A
  - 7 STORY MIXED-USE RESIDENTIAL
- **3D** NEW BUILDING 3D
  - 7 STORY MIXED-USE RESIDENTIAL
- **4IC** NEW BUILDINGS 4IC
  - TWO NEW 12 STORY MIXED-USE RESIDENTIAL
  OR
  - TWO NEW 12 STORY MIXED-USE OFFICE
- **4B** NEW BUILDING 4B
  - 7 STORY RESIDENTIAL
- **I** EXISTING I GARAGE ADDITION
  - 2 STORY ADDITION TO EXISTING 2 STORY PARKING GARAGE
  74TH STREET
  - FUTURE STREET AND PLAZA IMPROVEMENTS
- ZONE X - 0.2% ANNUAL CHANCE FLOOD HAZARD
- ZONE AE - 1% ANNUAL CHANCE FLOOD HAZARD
- CARA I
- **#** EXISTING BUILDING

I GARAGE

BUILDING I - GARAGE



BUILDING I - GARAGE GROUND LEVEL SITE PLAN

0' 40' 80'

LEVEL	LEASING	RESIDENTIAL		COMMON RESI AMENITY	TERRACE
	AREA	UNITS	AREA	AREA	AREA
R					
04					
03					
02					
01					
Total	0	0	0	0	0

LEVEL	SERVICES	PARKING		CIRC	COMMERCIAL
	AREA	UNITS	AREA	AREA	AREA
R		142	53,530	720	
04		142	53,530	720	
03		224	80,308		
02		224	80,308		
01		119	53,530		26,458
Total	0	851	321,206	1,440	0

SUMMARY

Phase Area: 123,430 SF (2.83 Acres)

Number of Floors: 4 levels above ground,
1 level underground

Existing Parking Count: 567
Parking Count: 284
Total Parking Count: 851

MULTIFAMILY OPEN SPACE

None

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.

LEGEND

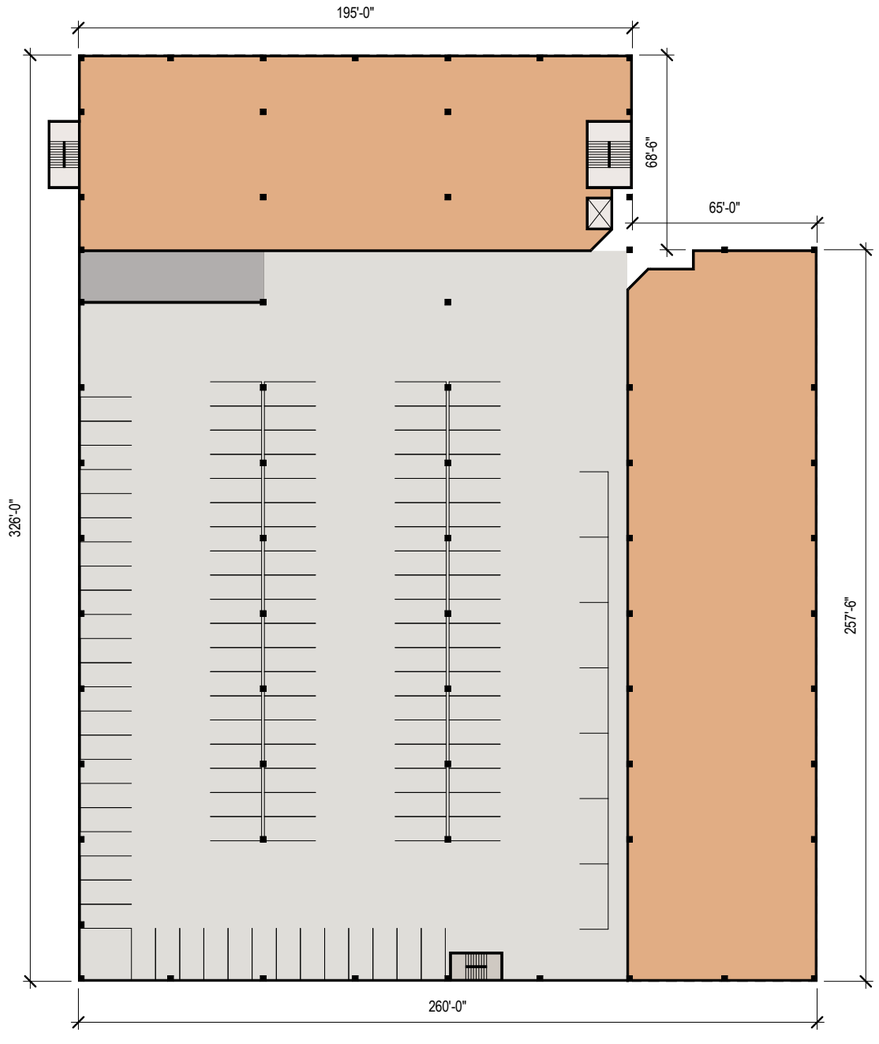
- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING I - GARAGE

BUILDING I - GARAGE GROUND LEVEL SITE PLAN

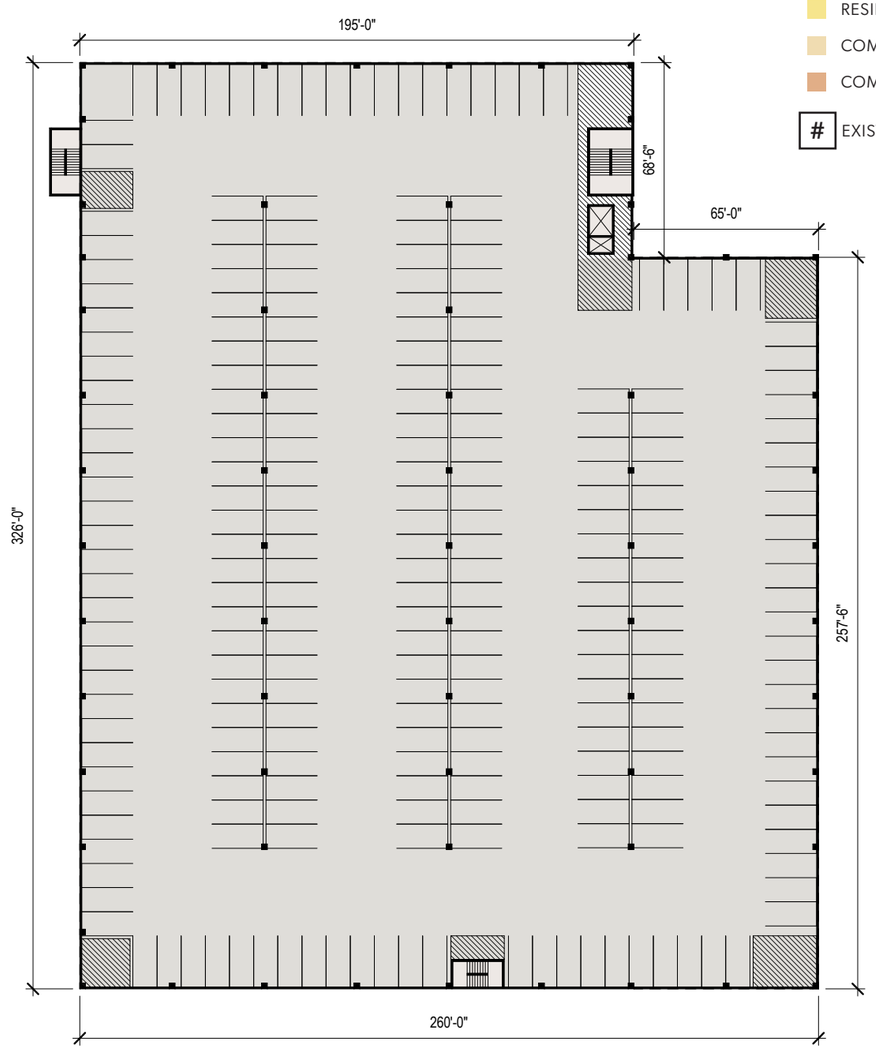
0' 25' 50'

BUILDING I - GARAGE



EXISTING LEVEL 01 FLOOR PLAN

0' 30' 60'



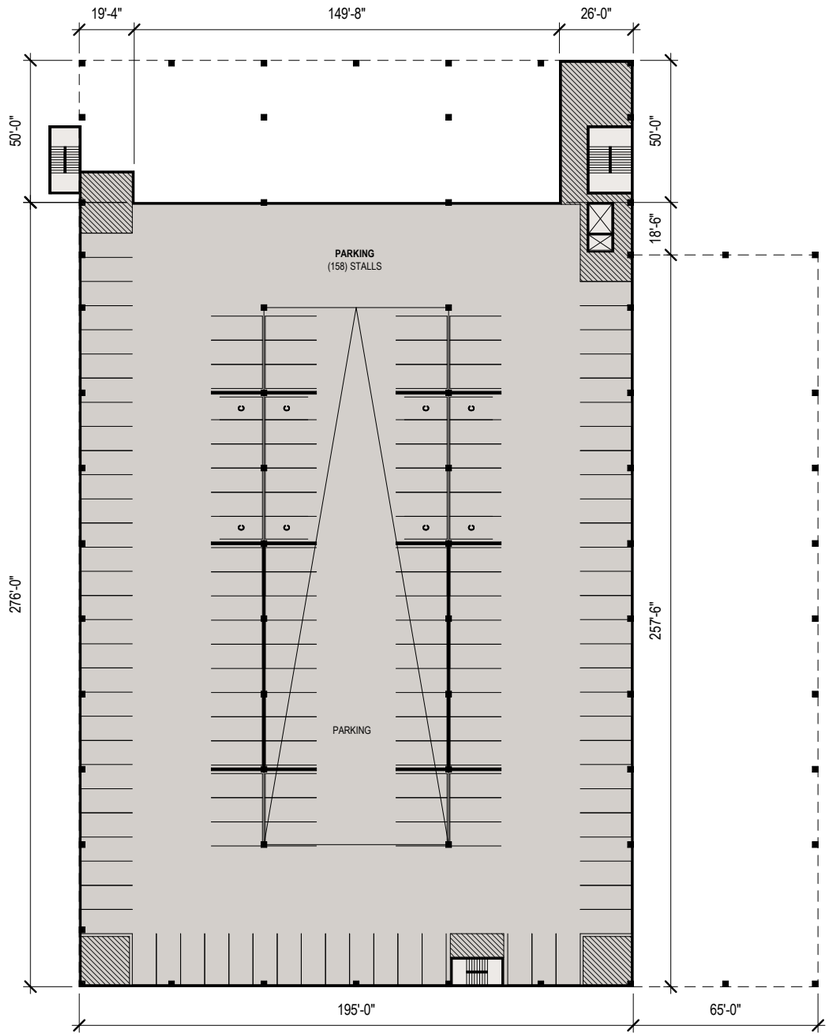
EXISTING LEVEL 02 - 03 FLOOR PLAN

0' 30' 60'

LEGEND

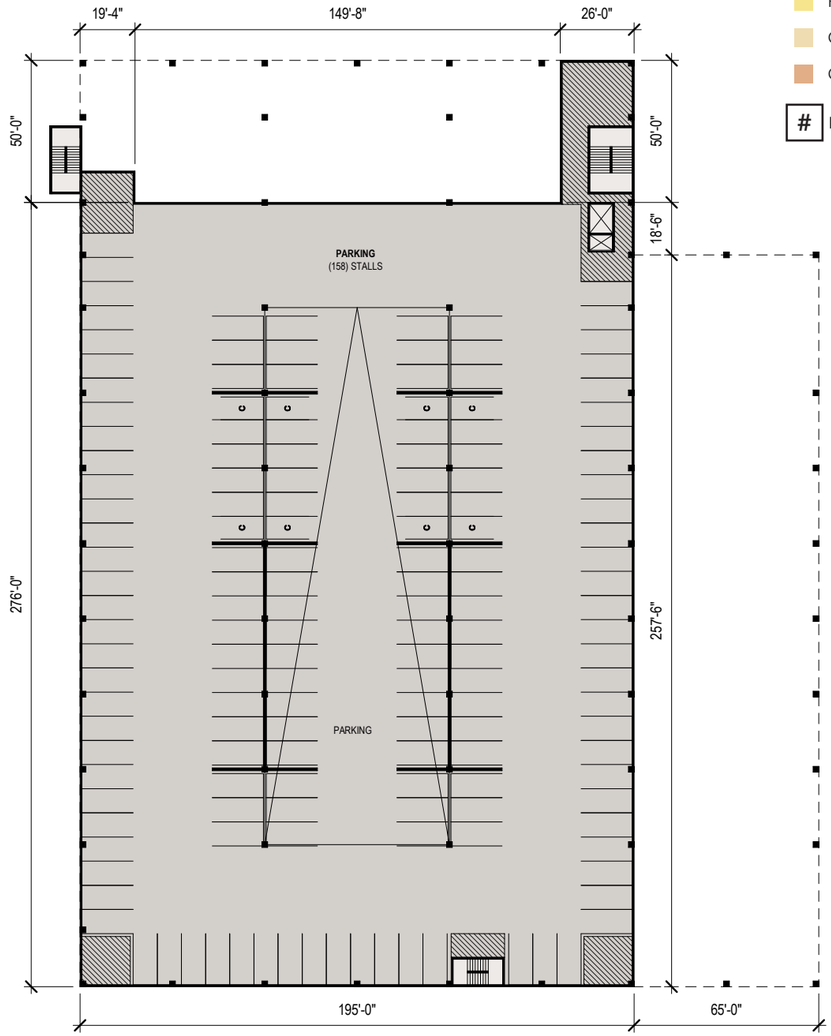
- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING I - GARAGE



NEW LEVEL 04 FLOOR PLAN

0' 30' 60'



NEW LEVEL ROOF PLAN

0' 30' 60'

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

4IC W RESIDENTIAL

BUILDING 4IC W - RESIDENTIAL

BUILDING 4IC - RESIDENTIAL GROUND LEVEL SITE PLAN

0' 40' 80'

SUMMARY

Phase Area: 76,168 SF (1.75 Acres)

Number of Floors: 12

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.
- New Mixed-use Residential buildings include a mix of Pedestrian Generating Uses as depicted on the plans.
- Per City Pre-app Guidance a floor shall not be counted as a usable floor if less than 50% gfa is usable.

MULTIFAMILY OPEN SPACE

21.10.120.E.1.A
At least 100 square feet per residential unit of open space shall be provided, up to a maximum area of 20 percent of the site.

Required: 25,200 SF
(100 square feet per unit)

Maximum Required: 15,233 SF
(20 percent of phase area)

Provided:
Terrace: 12,060 SF
Amenity: 11,020 SF
Total Multifamily Open Space: 23,080 SF = 12,060 SF (Terrace) + 11,020 SF (Amenity)

NOTE

Ground level plaza areas are not included in the residential open space calculations.

LEVEL	LEASING	RESIDENTIAL		COMMON RESI AMENITY	TERRACE
	AREA	UNITS	AREA	AREA	AREA
12		26	20,210	1,710	2,000
11		30	23,930		
10		30	23,930		
09		30	23,930		
08		30	23,930		
07		30	23,930		
06		30	23,930		
05		27	21,860	2,070	10,060
04		19	15,700		
03					
02					
01	2,570			7,240	
Total	2,570	252	201,350	11,020	12,060

LEVEL	SERVICES	PARKING		CIRC	COMMERCIAL
	AREA	UNITS	AREA	AREA	AREA
12	860			3,700	
11	860			3,700	
10	860			3,700	
09	860			3,700	
08	860			3,700	
07	860			3,700	
06	860			3,700	
05	860			3,700	
04	3,170	31	15,150	4,530	
03	1,760	79	34,520	2,270	
02	1,760	79	34,520	2,270	
01	8,150		2,130	5,350	11,820
Total	21,720	189	86,320	44,020	11,820

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY

EXISTING BUILDING

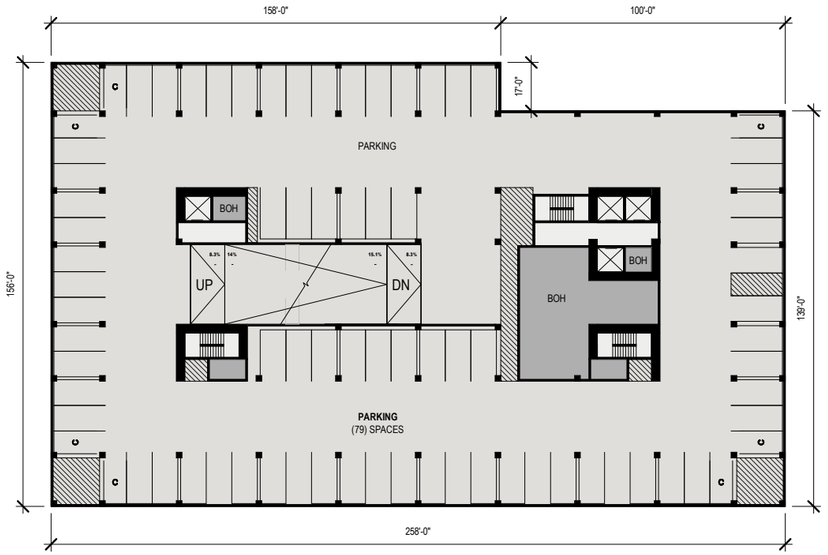
PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING 4IC W - RESIDENTIAL

BUILDING 4IC - RESIDENTIAL GROUND LEVEL SITE PLAN

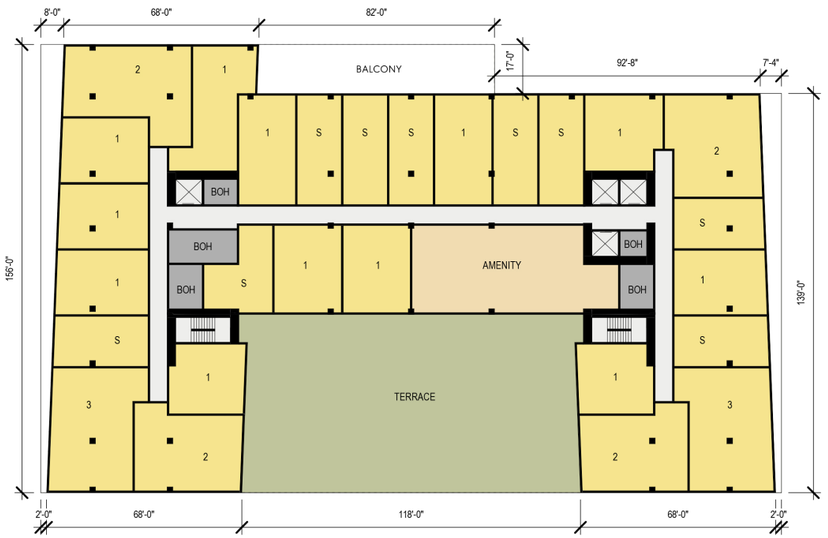
0' 25' 50'

BUILDING 4IC W - RESIDENTIAL



LEVEL 02 - 03 FLOOR PLAN

0' 30' 60'

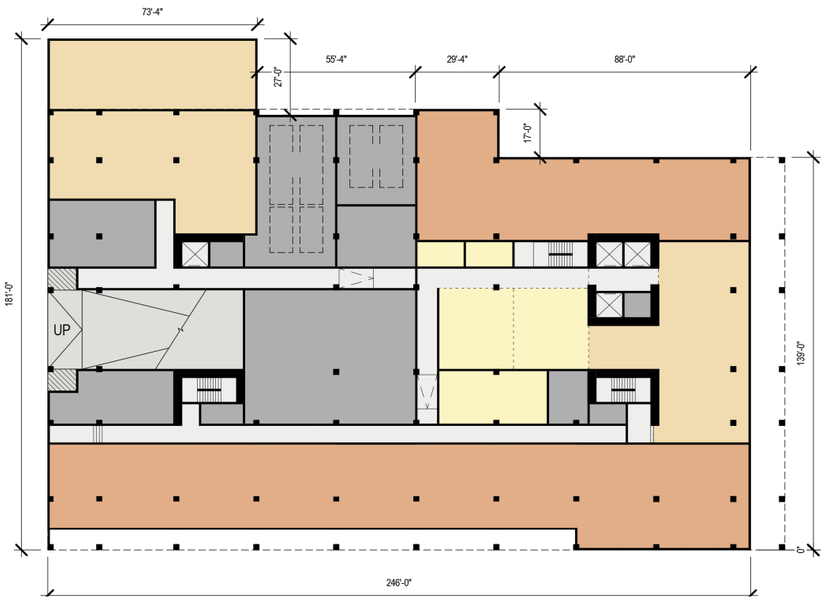


LEVEL 05 FLOOR PLAN

0' 30' 60'

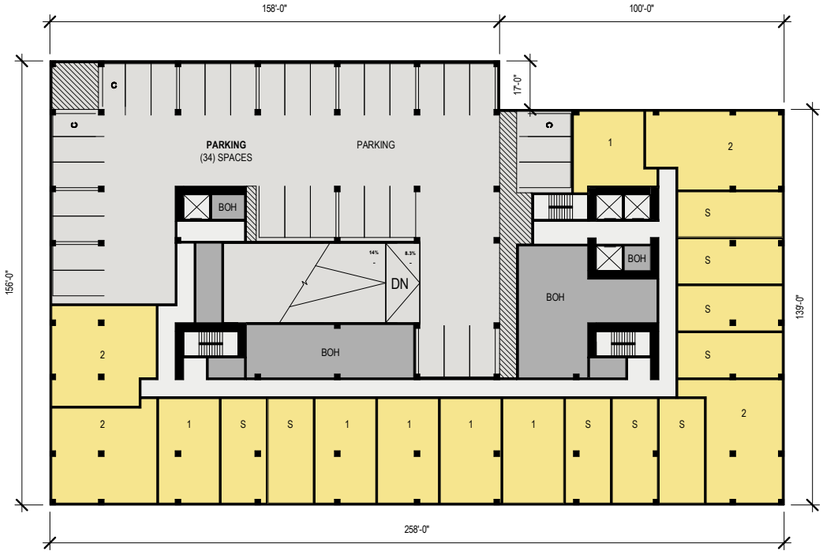
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING



LEVEL 01 FLOOR PLAN

0' 30' 60'



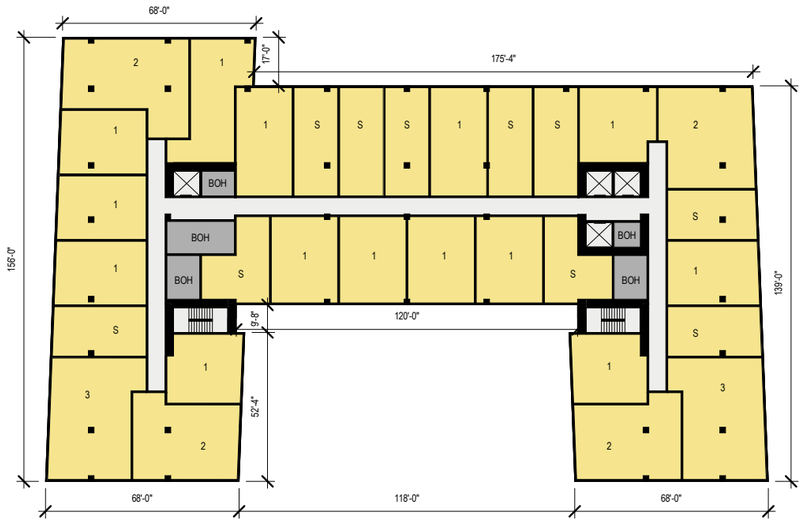
LEVEL 04 FLOOR PLAN

0' 30' 60'

BUILDING 4IC W - RESIDENTIAL

LEVEL 12 FLOOR PLAN

0' 30' 60'



LEVEL 06-11 FLOOR PLAN

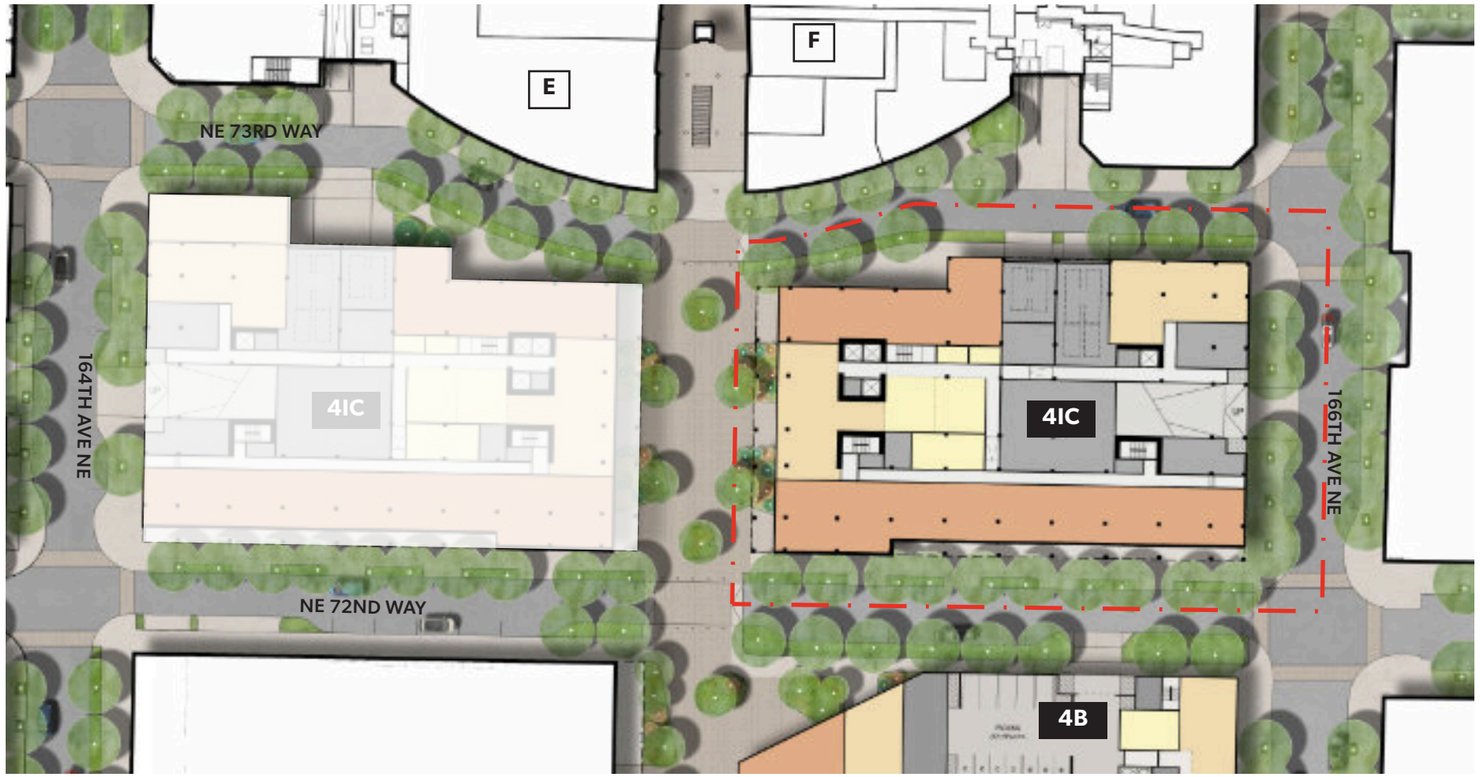
0' 30' 60'

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

4IC E RESIDENTIAL

BUILDING 4IC E - RESIDENTIAL



BUILDING 4IC - RESIDENTIAL GROUND LEVEL SITE PLAN

0' 40' 80'

LEVEL	LEASING	RESIDENTIAL		COMMON RESI AMENITY	TERRACE
	AREA	UNITS	AREA	AREA	AREA
12		26	20,210	1,710	2,000
11		30	23,920		
10		30	23,920		
09		30	23,920		
08		30	23,920		
07		30	23,920		
06		30	23,920		
05		27	21,850	2,070	10,060
04		19	15,700		
03					
02					
01	2,570			5,400	
Total	2,570	252	201,350	9,180	12,060

LEVEL	SERVICES	PARKING		CIRC	COMMERCIAL
	AREA	UNITS	AREA	AREA	AREA
12	870			3,700	
11	870			3,700	
10	870			3,700	
09	870			3,700	
08	870			3,700	
07	870			3,700	
06	870			3,700	
05	870			3,700	
04	3,170	31	15,140	4,540	
03	1,760	79	34,520	2,270	
02	1,760	79	34,520	2,270	
01	8,150		2,120	5,340	11,810
Total	21,780	189	86,320	44,020	11,810

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY

EXISTING BUILDING

PROPOSED NEW OR MODIFIED EXISTING BUILDING

SUMMARY

Phase Area: 63,200 SF (1.45 Acres)

Number of Floors: 12

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.
- New Mixed-use Residential buildings include a mix of Pedestrian Generating Uses as depicted on the plans.
- Per City Pre-app Guidance a floor shall not be counted as a usable floor if less than 50% gfa is usable.

MULTIFAMILY OPEN SPACE

21.10.120.E.1.A
At least 100 square feet per residential unit of open space shall be provided, up to a maximum area of 20 percent of the site.

Required: 25,200 SF
(100 square feet per unit)

Maximum Required: 12,640 SF
(20 percent of phase area)

Provided:
Terrace: 12,060 SF
Amenity: 9,810 SF
Total Multifamily Open Space: 21,870 SF = 12,060 SF (Terrace) + 9,810 SF (Amenity)

NOTE

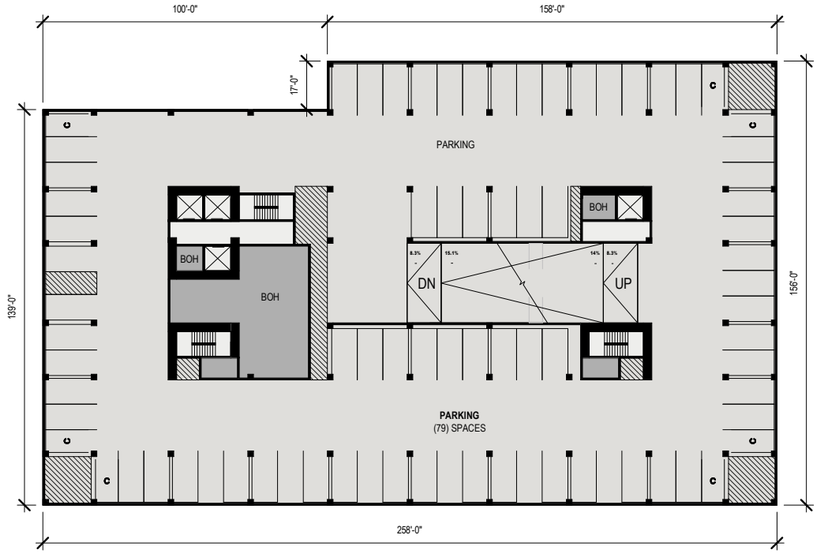
Ground level plaza areas are not included in the residential open space calculations.

BUILDING 4IC E - RESIDENTIAL

BUILDING 4IC - RESIDENTIAL GROUND LEVEL SITE PLAN

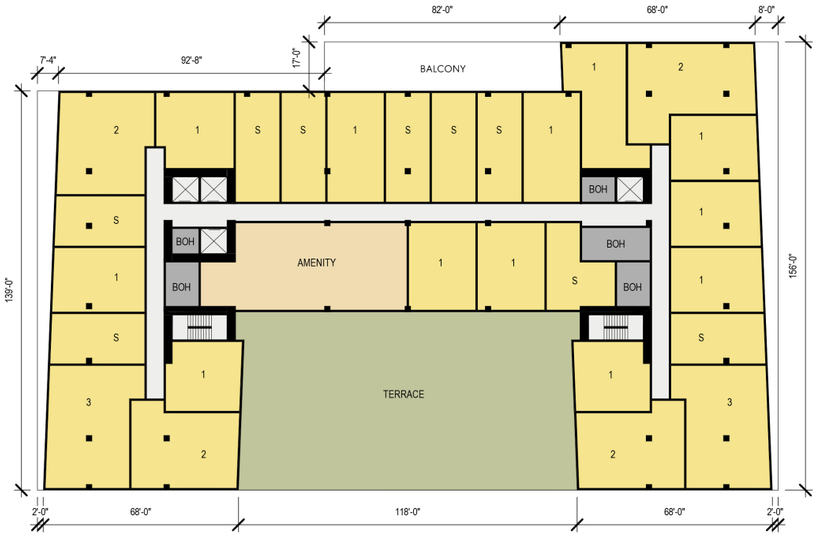
0' 25' 50'

BUILDING 4IC E - RESIDENTIAL



LEVEL 02 - 03 FLOOR PLAN

0' 30' 60'

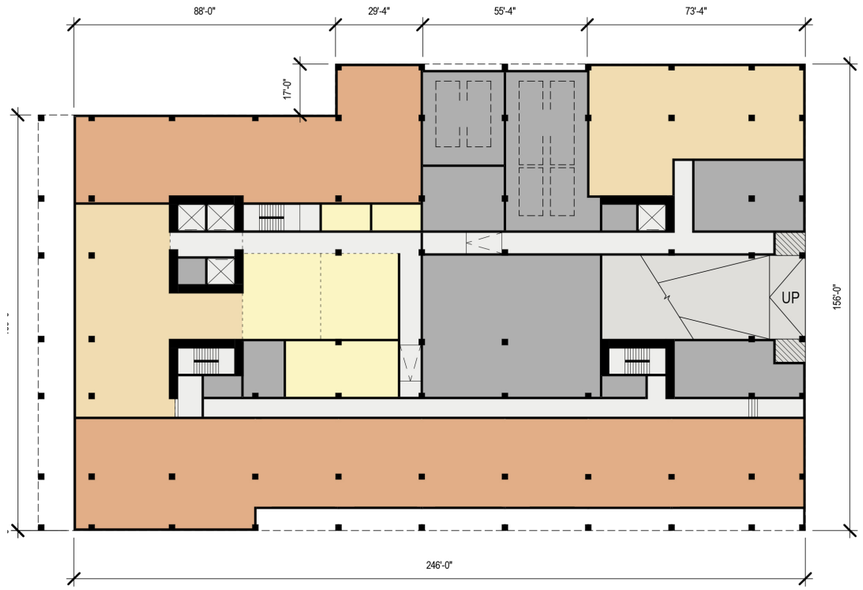


LEVEL 05 FLOOR PLAN

0' 30' 60'

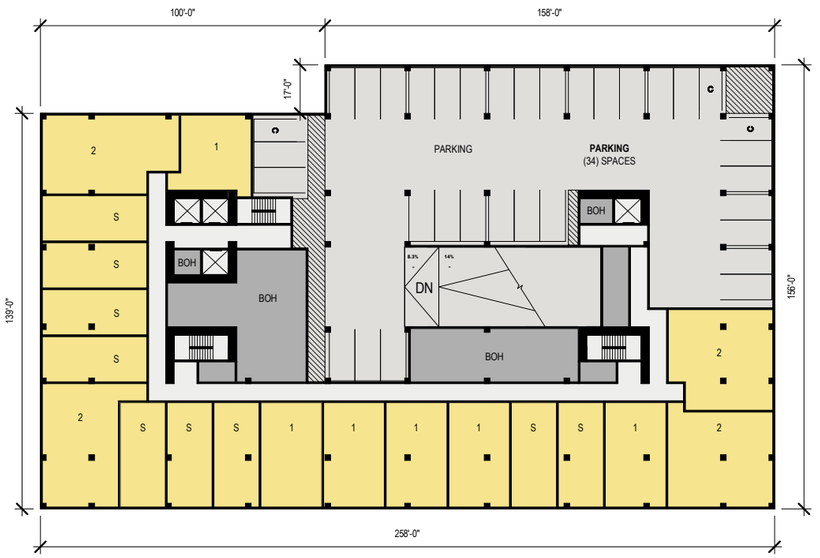
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING



LEVEL 01 FLOOR PLAN

0' 30' 60'



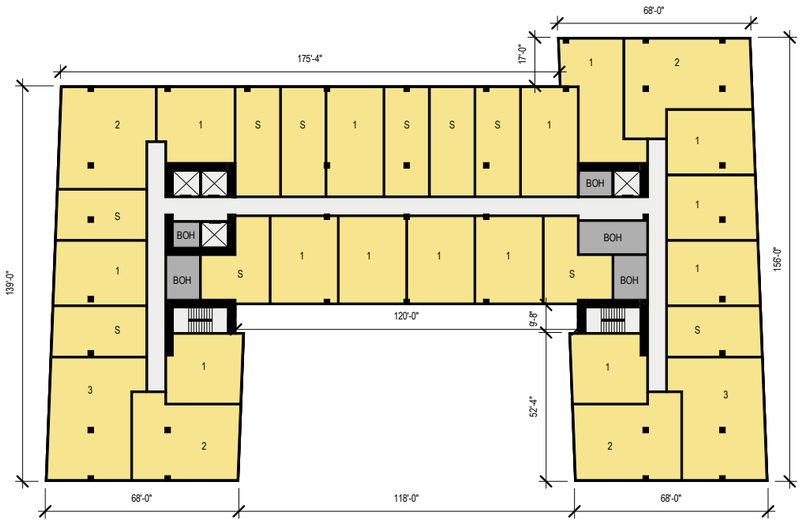
LEVEL 04 FLOOR PLAN

0' 30' 60'

BUILDING 4IC E - RESIDENTIAL

LEVEL 12 FLOOR PLAN

0' 30' 60'



LEVEL 06-11 FLOOR PLAN

0' 30' 60'

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

4ICW OFFICE

BUILDING 4ICW - OFFICE

BUILDING 4IC - RESIDENTIAL AND OFFICE GROUND LEVEL SITE PLAN

0′ 40′ 80′

SUMMARY

Phase Area: 76,168 SF (1.75 Acres)

Number of Floors: 12

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.
- Per City Pre-app Guidance a floor shall not be counted as a usable floor if less than 50% gfa is usable.

LEVEL	LOBBY AREA	OFFICE AREA	COMMON OFFICE AMENITY AREA	TERRACE AREA
12		32,260		
11		32,260		
10		32,260		
09		32,260		
08		32,260		
07		32,260		
06		32,260		
05		19,710		15,240
04				
03				
02				
01	4,410		6,970	
Total	4,410	245,530	6,970	15,240

LEVEL	SERVICES AREA	PARKING UNITS	PARKING AREA	CIRC AREA	COMMERCIAL AREA
12	1,910			1,690	
11	1,910			1,690	
10	1,910			1,690	
09	1,910			1,690	
08	1,910			1,690	
07	1,910			1,690	
06	1,910			1,690	
05	1,910			1,690	
04	1,260	87	35,070	2,220	
03	1,260	84	35,070	2,220	
02	1,260	84	35,070	2,220	
01	9,840		1,900	4,260	10,530
Total	21,780	255	107,110	24,440	10,530

LEGEND

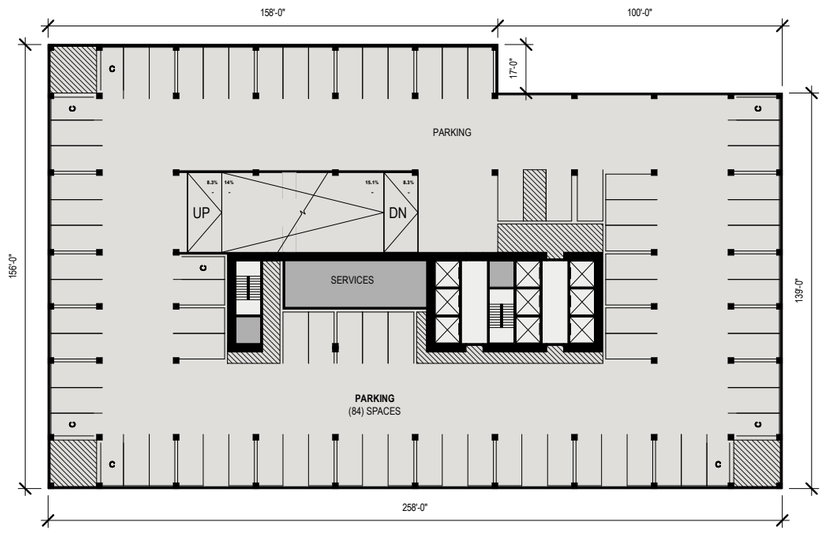
- LEASING / MAIL
- RESIDENTIAL
- COMMON OFFICE AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING 4ICW - OFFICE

BUILDING 4IC - RESIDENTIAL AND OFFICE GROUND LEVEL SITE PLAN

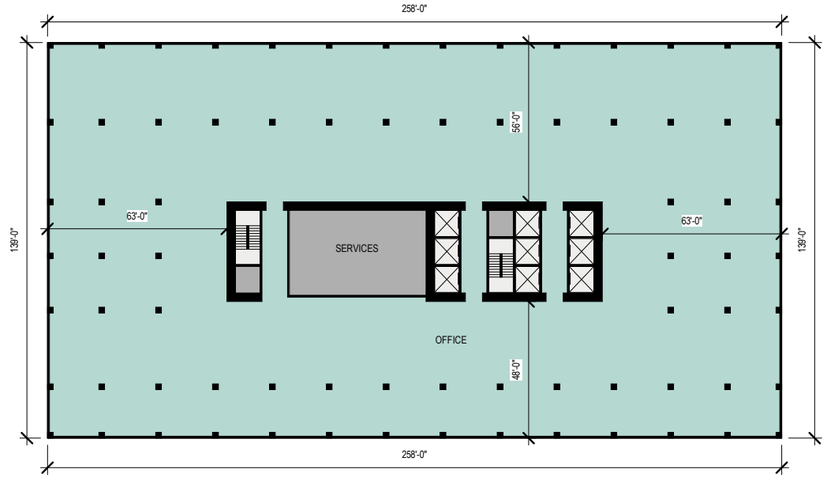
0' 25' 50'

BUILDING 4ICW - OFFICE



LEVEL 02 - 04 FLOOR PLAN

0' 30' 60'



LEVEL 06 - 12 FLOOR PLAN

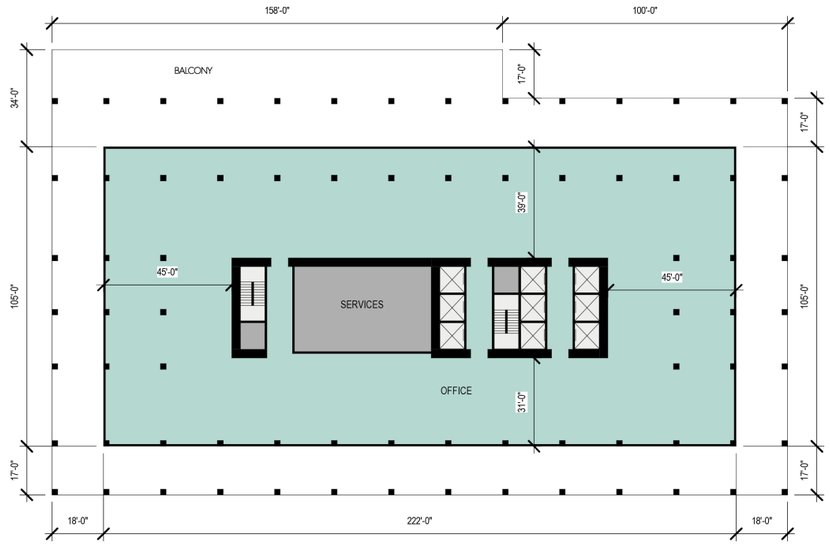
0' 30' 60'

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON OFFICE AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

LEVEL 01 FLOOR PLAN

0' 30' 60'



LEVEL 05 FLOOR PLAN

0' 30' 60'

4B RESIDENTIAL

BUILDING 4B - RESIDENTIAL

BUILDING 4B - RESIDENTIAL GROUND LEVEL SITE PLAN

0' 40' 80'

LEVEL	LEASING	RESIDENTIAL		COMMON RESI AMENITY	TERRACE
	AREA	UNITS	AREA	AREA	AREA
08		20	16,170	1,120	3,920
07		26	21,160		
06		26	21,160		
05		26	21,160		
04		25	19,880	710	5,900
03					
02		7	5,990		
01	1,870	6	5,050	7,240	
Total	1,870	136	110,570	9,070	9,820

LEVEL	SERVICES	PARKING		CIRC	COMMERCIAL
	AREA	UNITS	AREA	AREA	AREA
08	510			2,450	
07	440			2,570	
06	440			2,570	
05	440			2,570	
04	840			2,750	
03	480	70	29,110	490	
02	1,640	20	11,570	2,680	
01	2,830	12	7,650	2,740	2,690
Total	7,620	102	48,330	18,820	2,690

SUMMARY

Phase Area: 50,894 SF (1.17 Acres)

Number of Floors: 8

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.
- New Mixed-use Residential buildings include a mix of Pedestrian Generating Uses as depicted on the plans.

MULTIFAMILY OPEN SPACE

21.10.120.E.1.A
At least 100 square feet per residential unit of open space shall be provided, up to a maximum area of 20 percent of the site.

Required: 13,600 SF
(100 square feet per unit)

Maximum Required: 10,179 SF
(20 percent of phase area)

Provided:
Terrace: 9,820 SF
Amenity: 9,070 SF
Total Multifamily Open Space: 18,890 SF = 9,820 SF (Terrace) + 9,070 SF (Amenity)

NOTE

Ground level plaza areas are not included in the residential open space calculations.

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY

EXISTING BUILDING

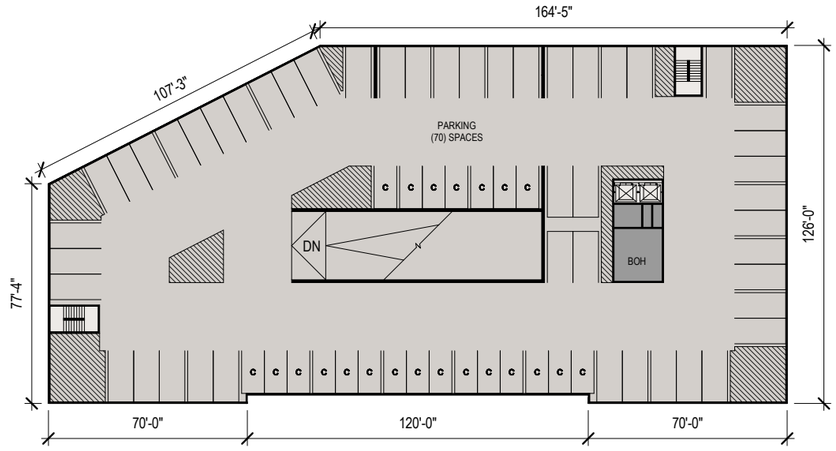
PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING 4B - RESIDENTIAL

BUILDING B - RESIDENTIAL GROUND LEVEL SITE PLAN

0' 15' 30'

BUILDING 4B - RESIDENTIAL

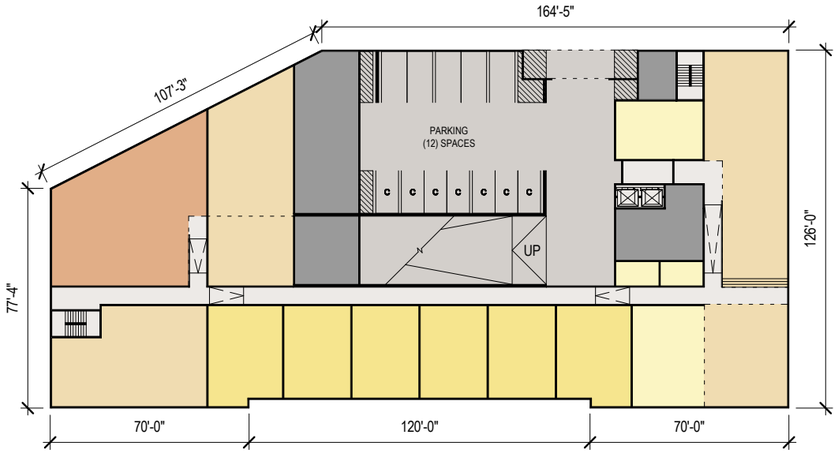


LEVEL 03 FLOOR PLAN

0' 30' 60'

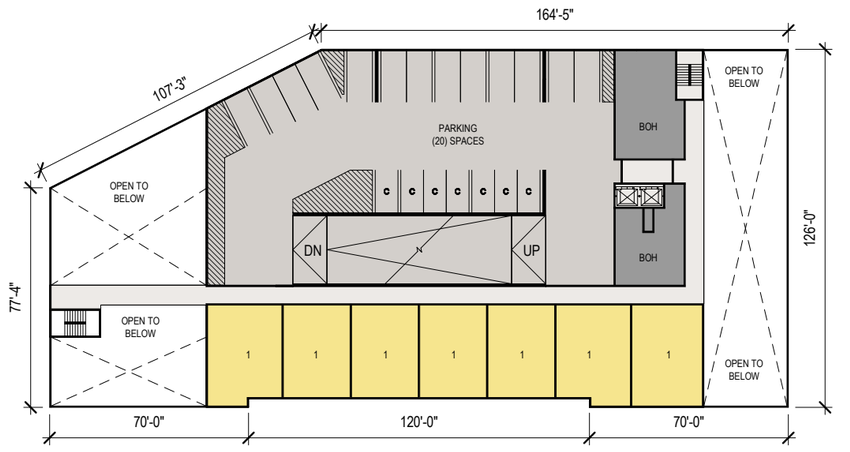
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING



LEVEL 01 FLOOR PLAN

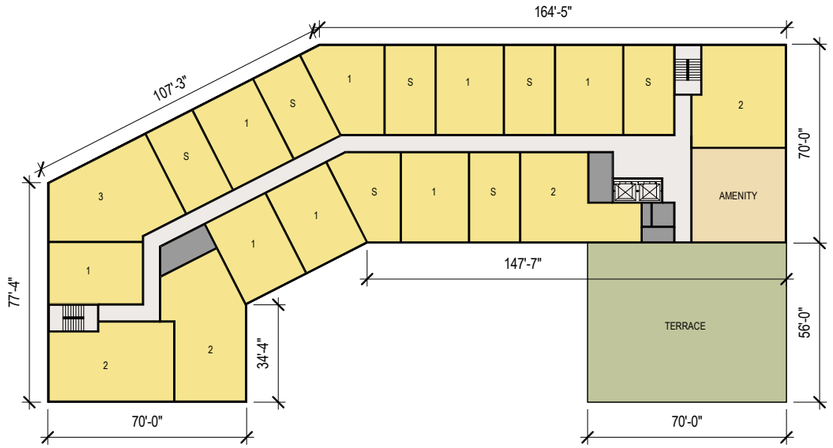
0' 30' 60'



LEVEL 02 FLOOR PLAN

0' 30' 60'

BUILDING 4B - RESIDENTIAL

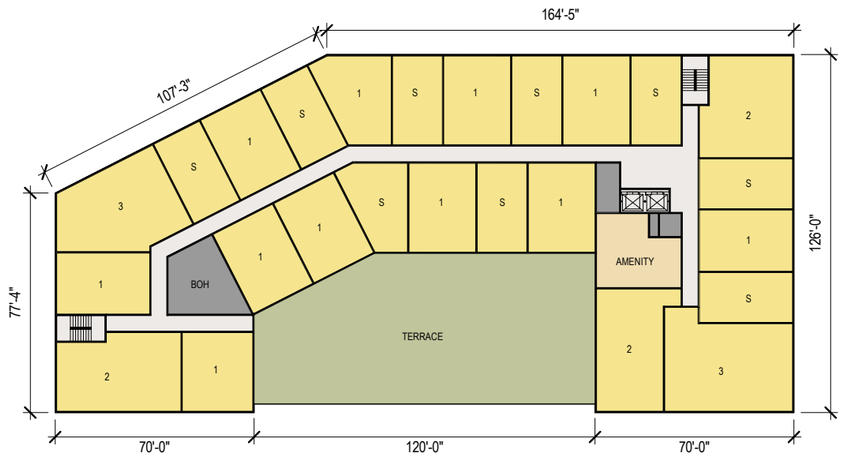


LEVEL 08 FLOOR PLAN

0' 30' 60'

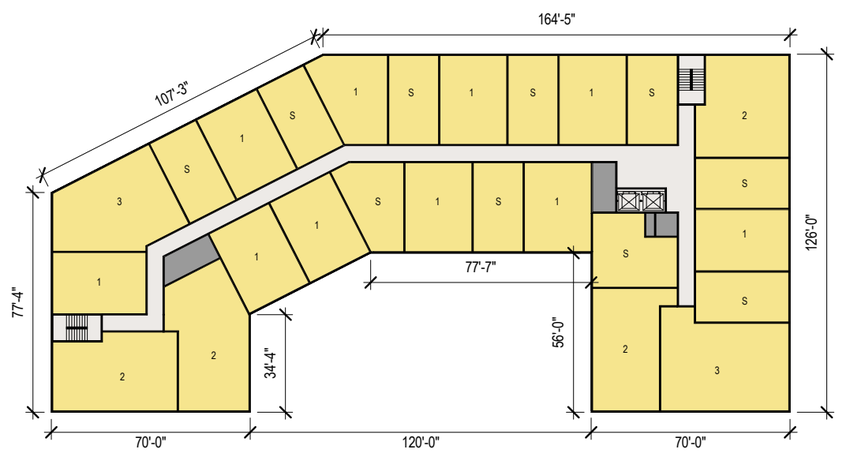
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING



LEVEL 04 FLOOR PLAN

0' 30' 60'



LEVEL 05 - 07 FLOOR PLAN

0' 30' 60'

3A RESIDENTIAL

BUILDING 3A - RESIDENTIAL

BUILDING 3A - RESIDENTIAL GROUND LEVEL SITE PLAN

0' 50' 100'

LEVEL	LEASING	RESIDENTIAL		COMMON RESI AMENITY	TERRACE
	AREA	UNITS	AREA	AREA	AREA
07		26	20,830	2,130	3,730
06		31	25,340		
05		31	25,340		
04		31	25,340		
03		29	22,980	2,360	3,130
02					
01	1,530			2,850	
Total	1,530	148	119,830	7,340	6,860

LEVEL	SERVICES	PARKING		CIRC	COMMERCIAL
	AREA	UNITS	AREA	AREA	AREA
07	200			3,040	
06	1,070			3,530	
05	1,070			3,530	
04	1,070			3,530	
03	1,070	110	28,090	3,530	
02	1,150			690	
01	3,730			3,490	16,070
Total	9,360	10	28,090	21,340	16,070

SUMMARY

Phase Area: 42,682 SF (0.98 Acres)

Number of Floors: 7

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.
- New Mixed-use Residential buildings include a mix of Pedestrian Generating Uses as depicted on the plans.

MULTIFAMILY OPEN SPACE

21.10.120.E.1.A
At least 100 square feet per residential unit of open space shall be provided, up to a maximum area of 20 percent of the site.

Required: 14,800 SF
(100 square feet per unit)

Maximum Required: 8,537 SF
(20 percent of phase area)

Provided:
Terrace: 6,860 SF
Amenity: 7,340 SF
Total Multifamily Open Space: 14,200 SF = 6,860 SF (Terrace) + 7,340 SF (Amenity)

NOTE

Ground level plaza areas are not included in the residential open space calculations.

LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY

EXISTING BUILDING

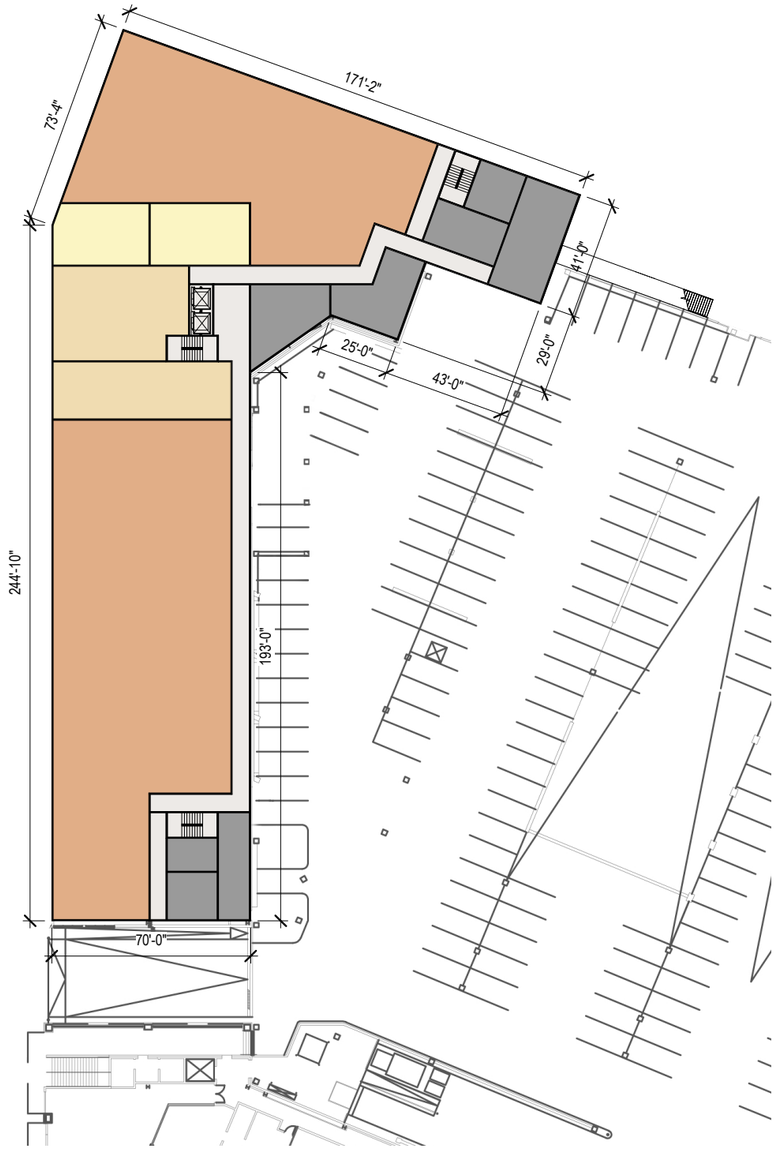
PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING 3A - RESIDENTIAL

BUILDING 3A - RESIDENTIAL GROUND LEVEL SITE PLAN

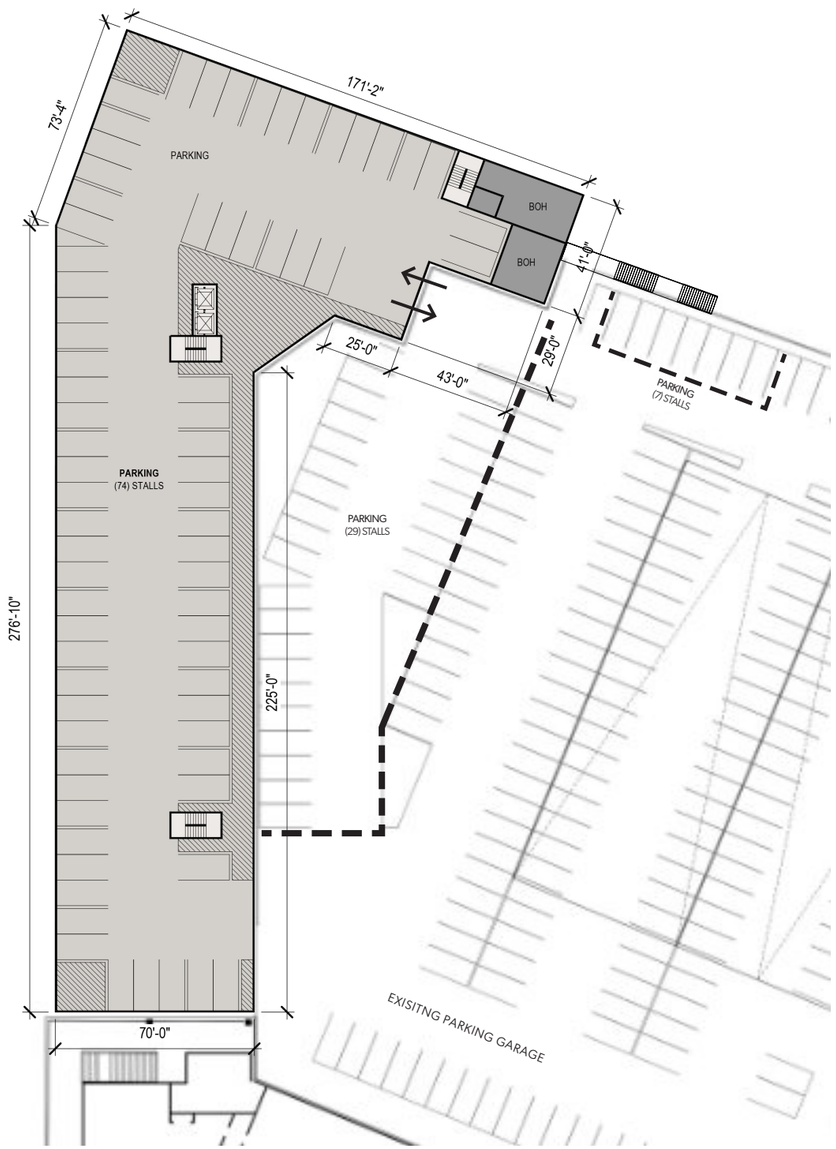
0' 30' 60'

BUILDING 3A - RESIDENTIAL



LEVEL 01 FLOOR PLAN

0' 30' 60'



LEVEL 02 FLOOR PLAN

0' 30' 60'

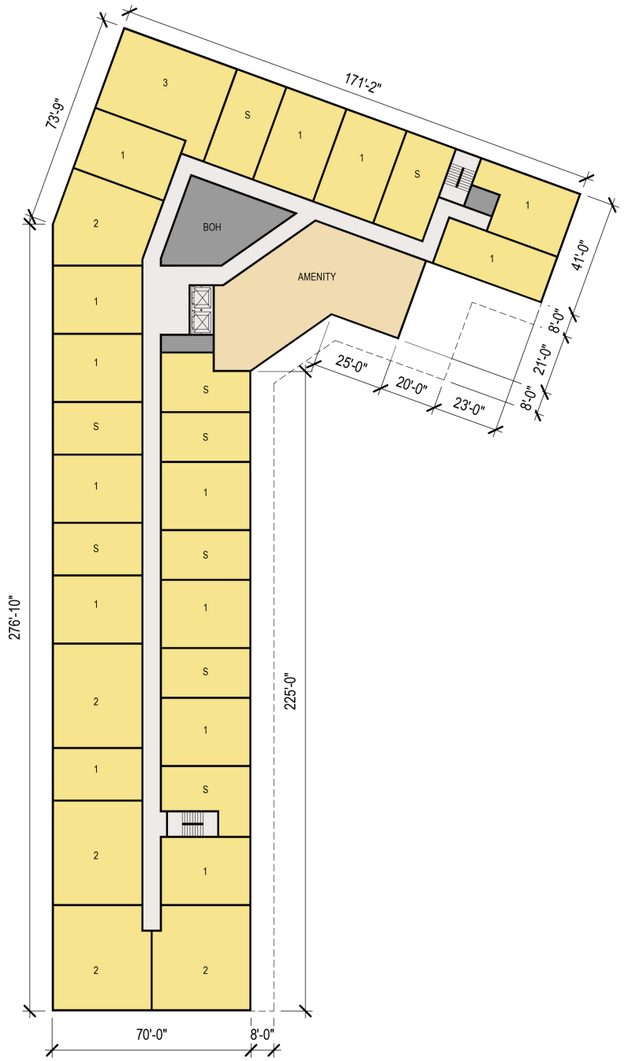
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING 3A - RESIDENTIAL

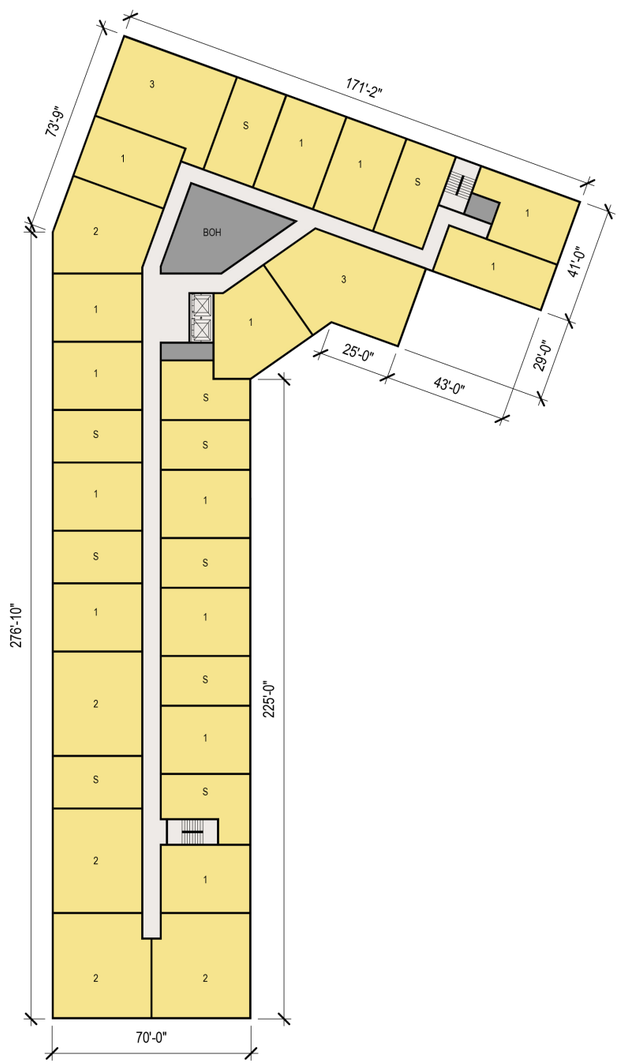
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING



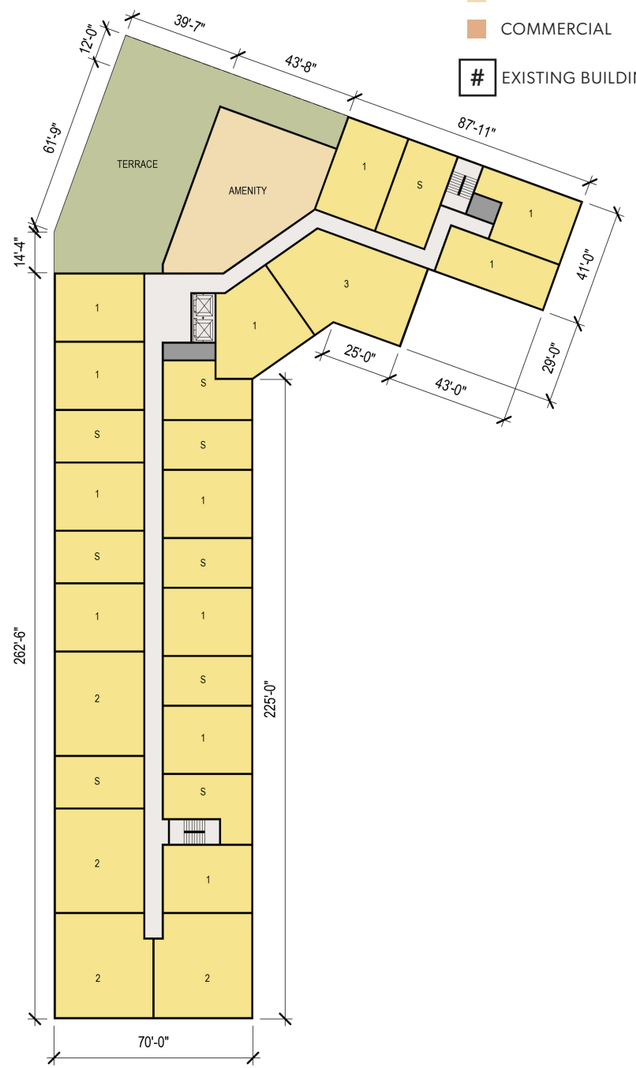
LEVEL 03 FLOOR PLAN

0' 30' 60'



LEVEL 04 - 06 TYPICAL FLOOR PLANS

0' 30' 60'

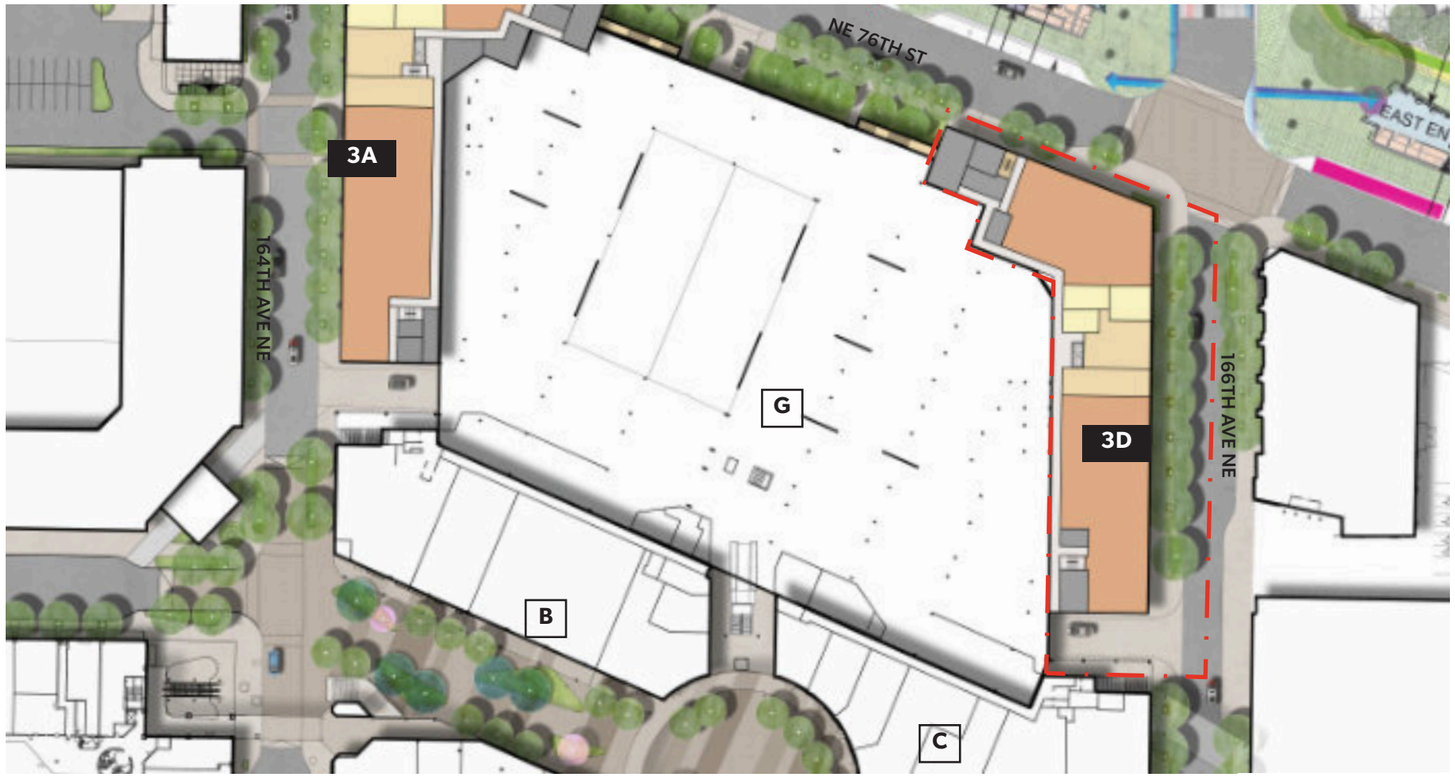


LEVEL 07 FLOOR PLAN

0' 30' 60'

3D RESIDENTIAL

BUILDING 3D - RESIDENTIAL



BUILDING 3D - RESIDENTIAL GROUND LEVEL SITE PLAN

0' 50' 100'

LEVEL	LEASING	RESIDENTIAL		COMMON RESI AMENITY	TERRACE
	AREA	UNITS	AREA	AREA	AREA
07		23	18,110	2,310	4,000
06		30	24,310		
05		30	24,310		
04		30	24,310		
03		27	22,260	2,560	3,670
02					
01	1,670			2,730	
Total	1,670	140	113,300	7,600	7,670

LEVEL	SERVICES	PARKING		CIRC	COMMERCIAL
	AREA	UNITS	AREA	AREA	AREA
07	590			2,890	
06	590			3,000	
05	590			3,000	
04	590			3,000	
03	90	104	25,600	3,000	
02	1,870			490	
01	3,010			3,600	14,800
Total	7,330	104	25,600	18,980	14,800

SUMMARY

Phase Area: 39,303 SF (0.9 Acres)

Number of Floors: 7

NOTE

- Future building design shall demonstrate compliance with RZC articulation requirements.
- Future building design shall provide screening from BOH spaces in compliance with RZC design standards, including, but not limited to transparency, ornamental screening, or landscape screening.
- Square footage, unit counts, and space allocations are approximate, and subject to change within the limits of the TIA and Development Agreement.
- New Mixed-use Residential buildings include a mix of Pedestrian Generating Uses as depicted on the plans.

MULTIFAMILY OPEN SPACE

21.10.120.E.1.A
At least 100 square feet per residential unit of open space shall be provided, up to a maximum area of 20 percent of the site.

Required: 14,000 SF
(100 square feet per unit)

Maximum Required: 7,861 SF
(20 percent of phase area)

Provided:
Terrace: 7,670 SF
Amenity: 7,600 SF
Total Multifamily Open Space: 15,270 SF = 7,670 SF (Terrace) + 7,600 SF (Amenity)

NOTE

Ground level plaza areas are not included in the residential open space calculations.

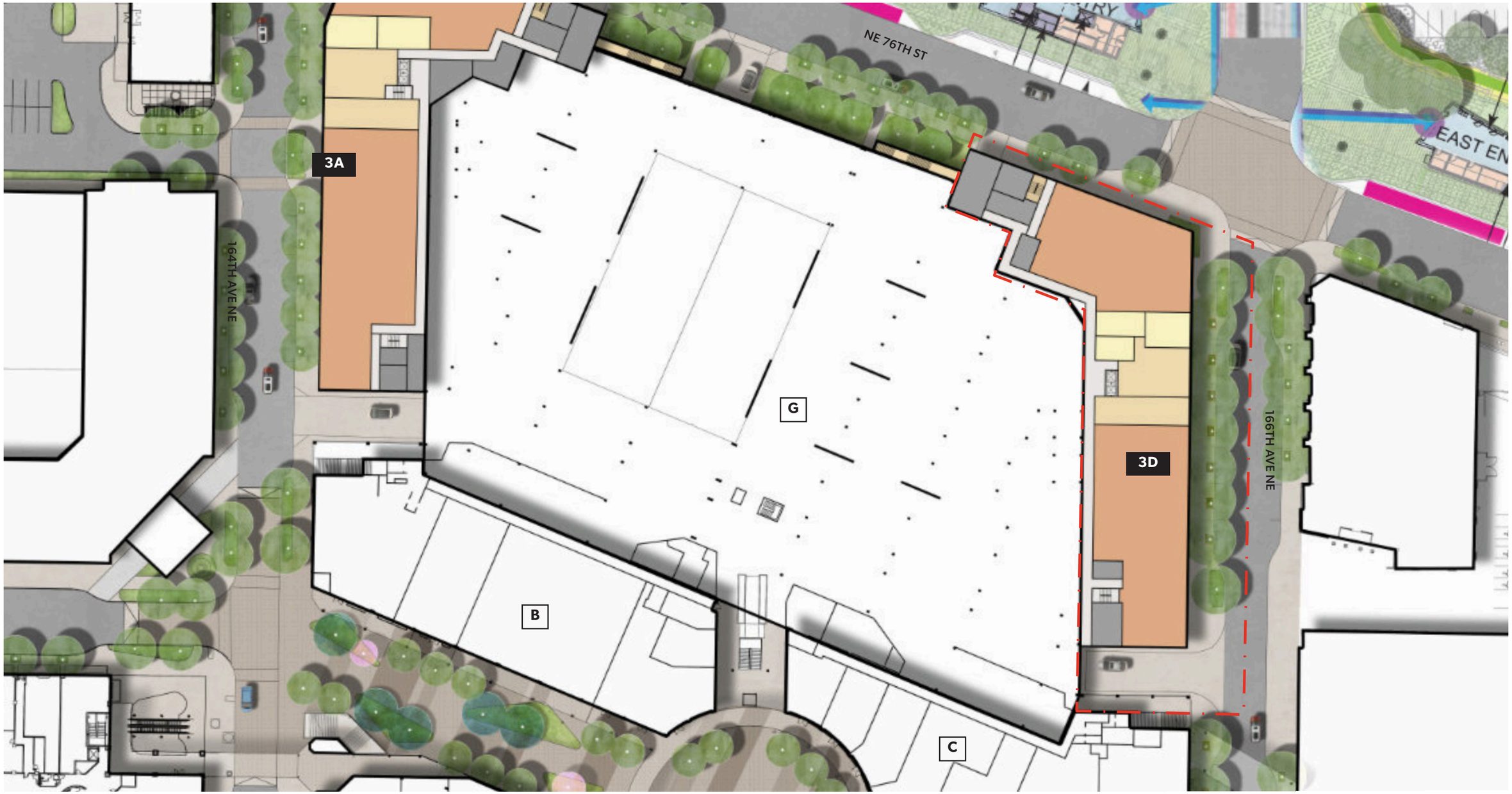
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY

EXISTING BUILDING

PROPOSED NEW OR MODIFIED EXISTING BUILDING

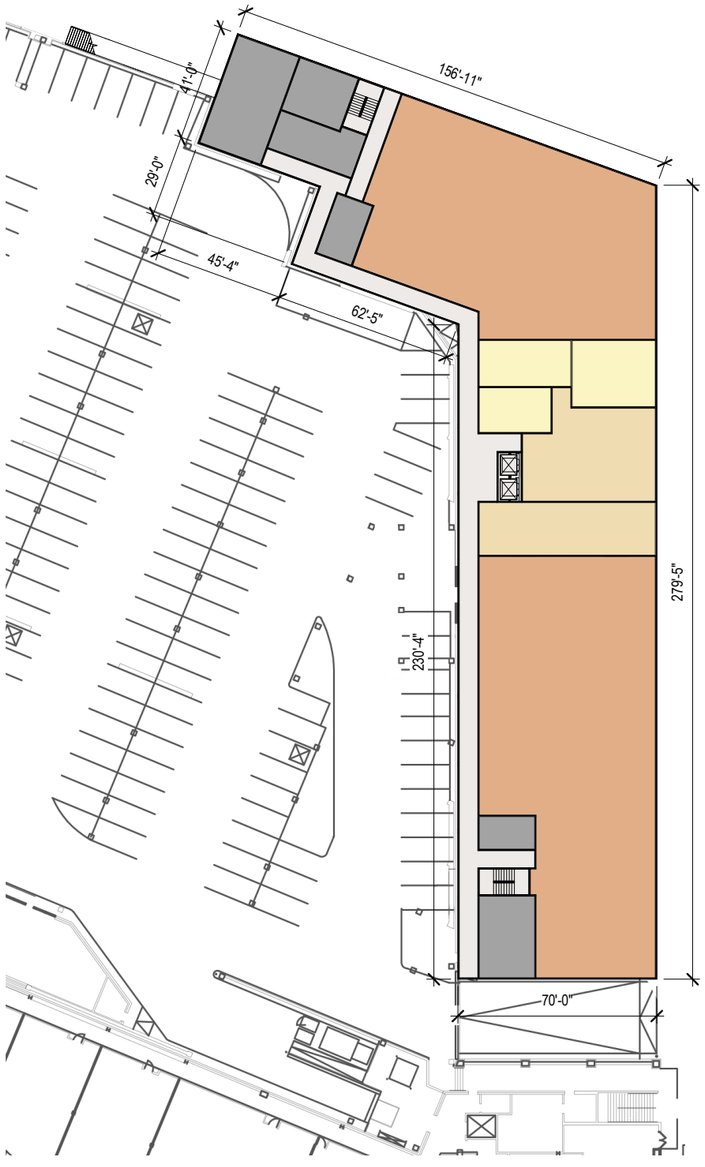
BUILDING 3D - RESIDENTIAL



BUILDING 3D - RESIDENTIAL GROUND LEVEL SITE PLAN

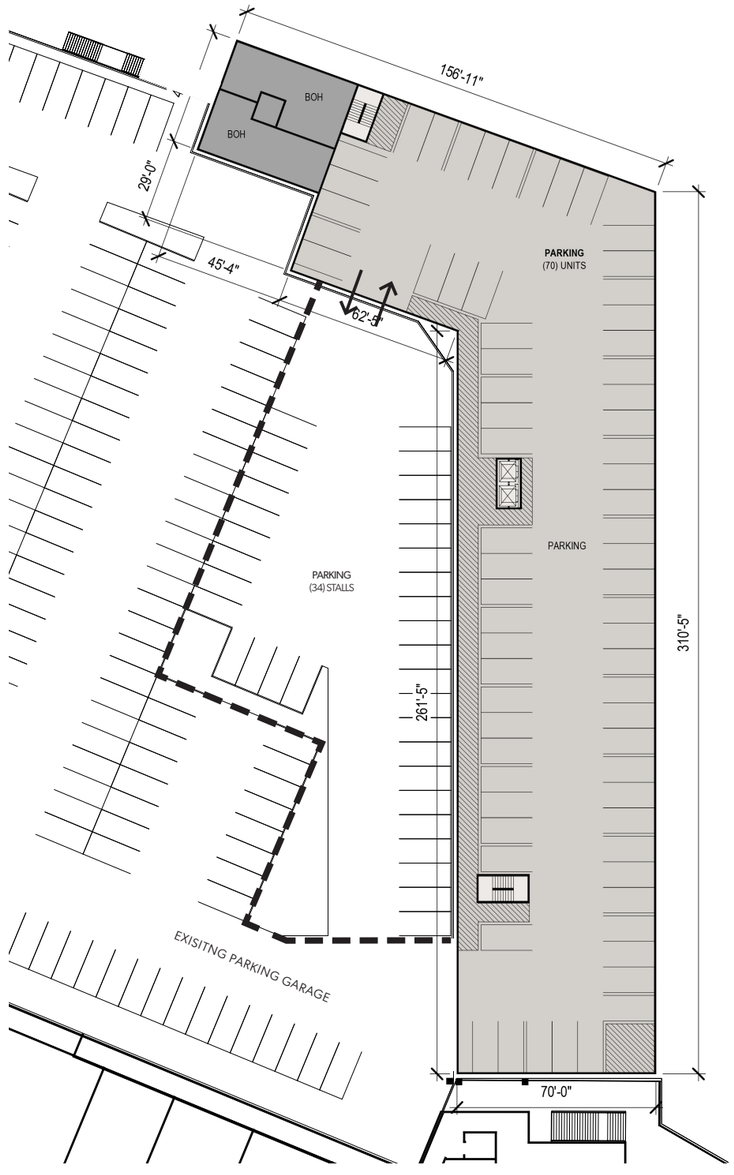
0' 30' 60'

BUILDING 3D - RESIDENTIAL



LEVEL 01 FLOOR PLAN

0' 30' 60'



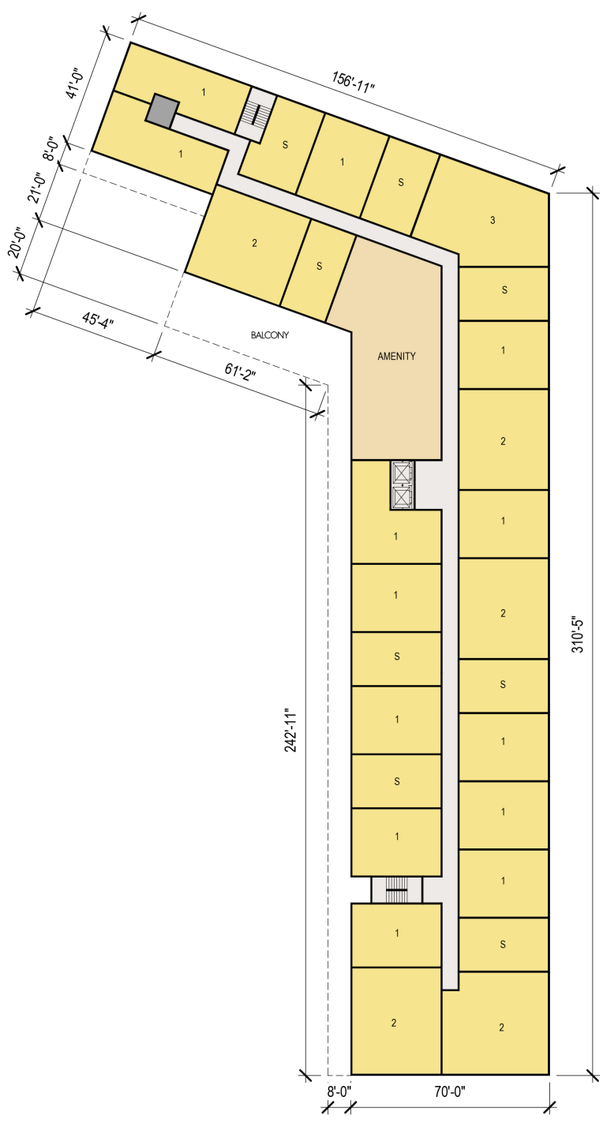
LEVEL 02 FLOOR PLAN

0' 30' 60'

LEGEND

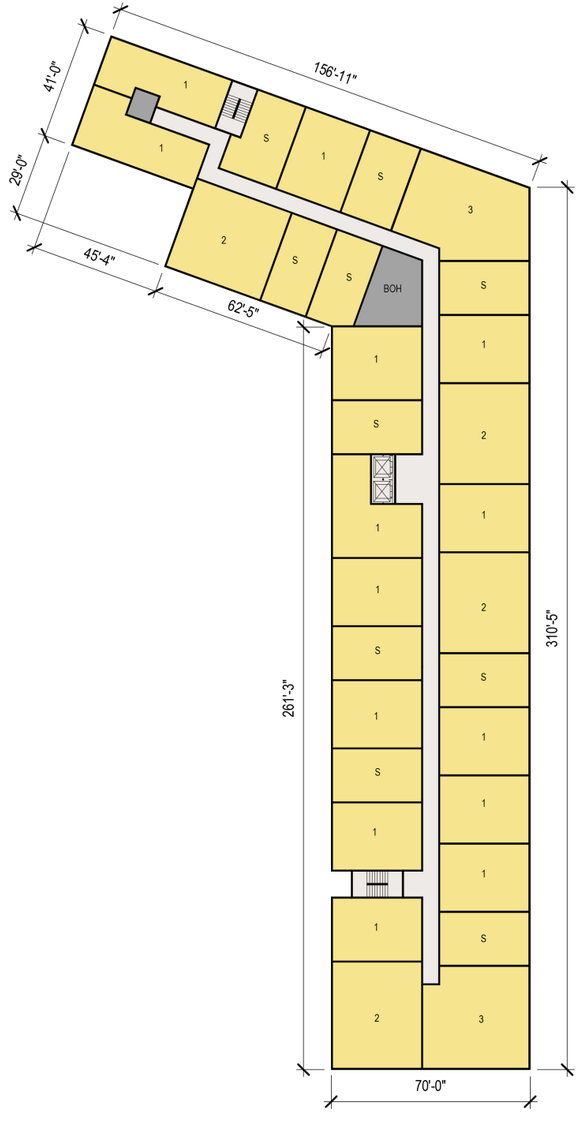
- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

BUILDING 3D - RESIDENTIAL



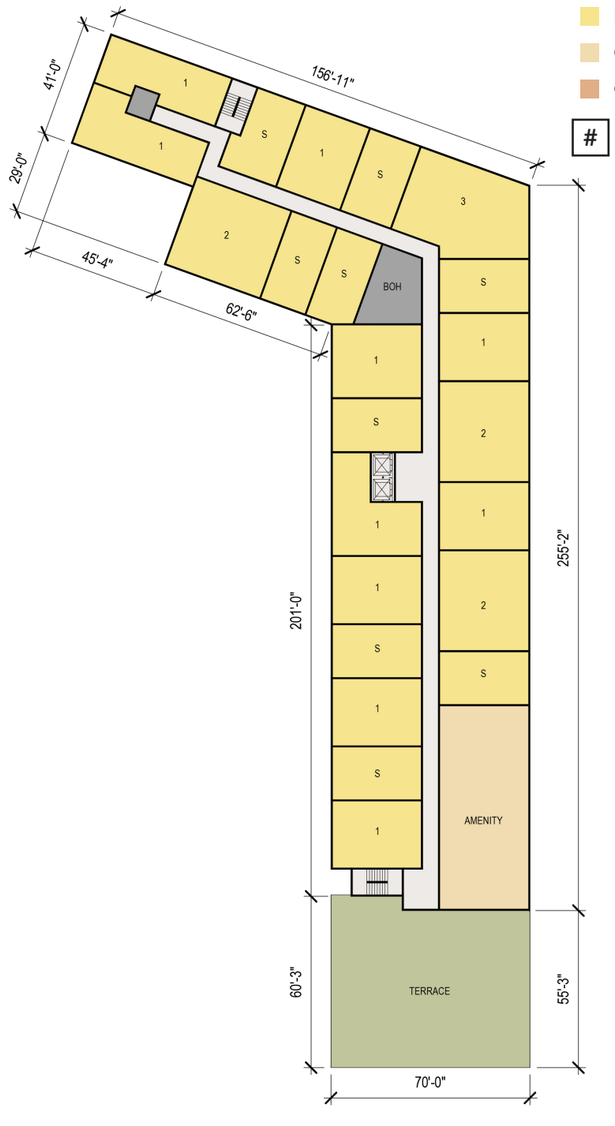
LEVEL 03 FLOOR PLAN

0' 30' 60'



LEVEL 04 - 06 TYPICAL FLOOR PLANS

0' 30' 60'



LEVEL 07 FLOOR PLAN

0' 30' 60'

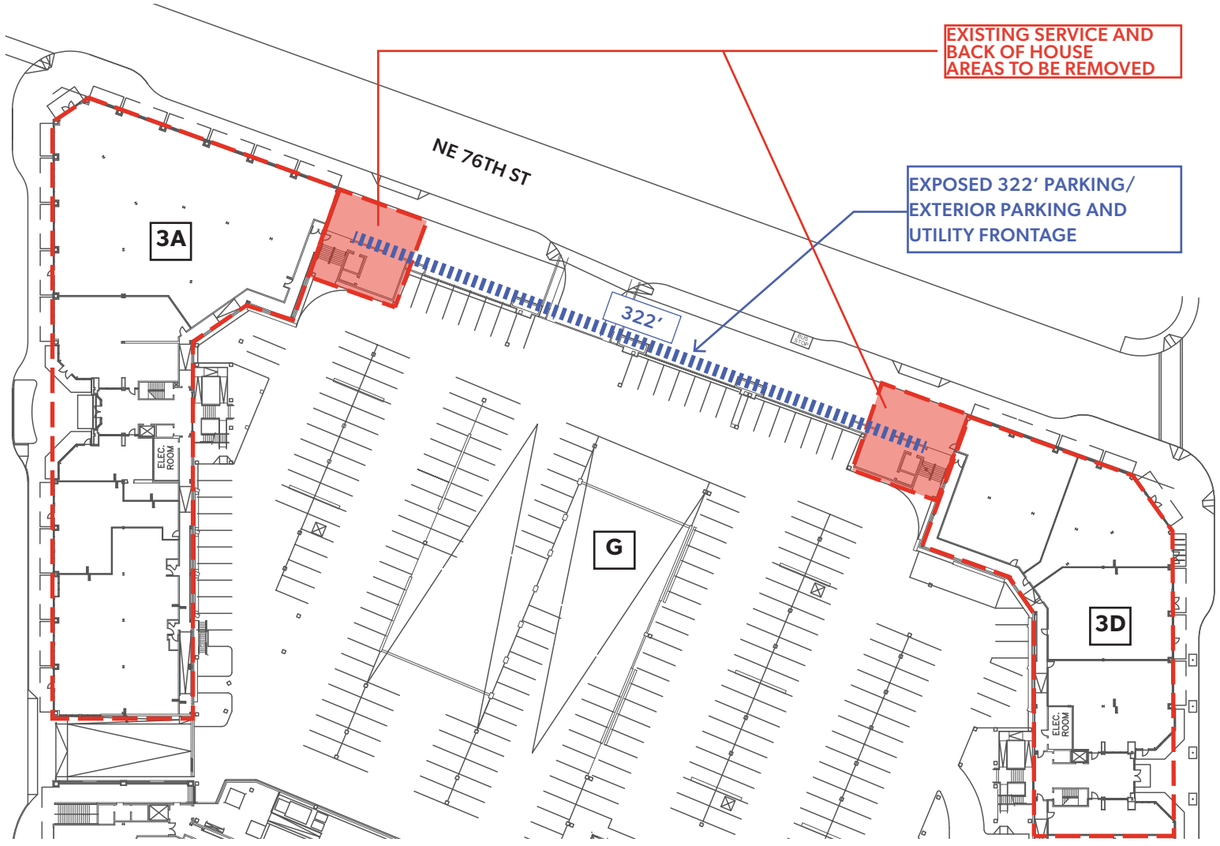
LEGEND

- LEASING / MAIL
- RESIDENTIAL
- COMMON RESI AMENITY
- COMMERCIAL
- # EXISTING BUILDING
- SERVICES
- PARKING
- CIRCULATION
- OUTDOOR AMENITY
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING

EXISTING G GARAGE MODIFICATIONS

BUILDING G - GARAGE

EXISTING



BUILDING G - GARAGE EXISTING GROUND LEVEL SITE PLAN

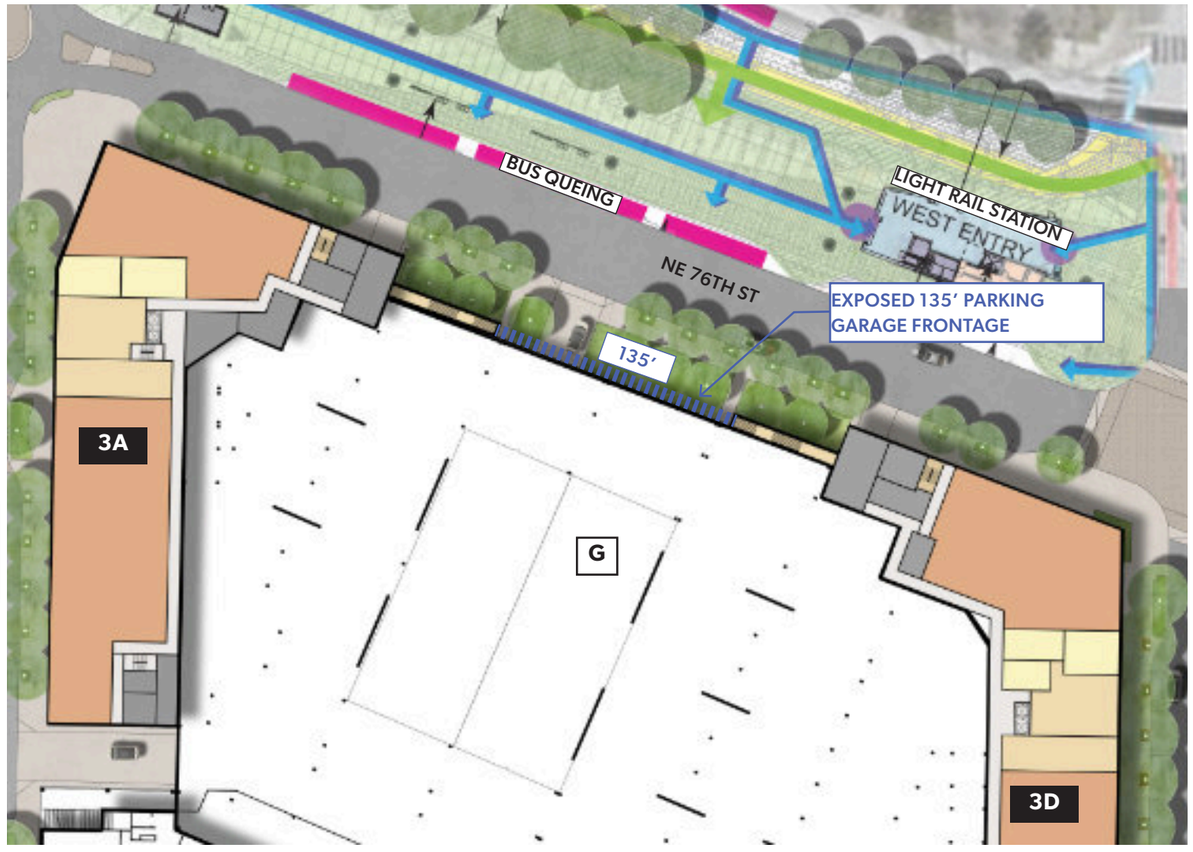
0' 40' 80'

The original Town Center Design located pedestrian frontages at the corners of 166th and 76th Streets and 164th and 176th Streets to reinforce the connection to downtown while placing the less prominent parking garage frontage oriented toward a previous freight rail line. While the future condition of an elevated rail line and planned bus queuing continue to make this frontage a challenge to activate, the design approach attempts to mitigate the existing garage.

Exterior trash enclosures and transformers are relocated into the base level of the proposed new buildings with residential units above. The existing exit stairs have been relocated to the face of the parking garage to act to provide a sense of transparency and act as an active screening element. Where the exposed garage remains, the existing 27' wide landscape buffer will be replanted per. RZC 21.32

Pedestrian-Oriented street frontage is maintained along 76th Streets near the site entry corners and along the building extents facing both 164th and 166th Streets.

PROPOSED



BUILDING G - GARAGE PROPOSED GROUND LEVEL SITE PLAN

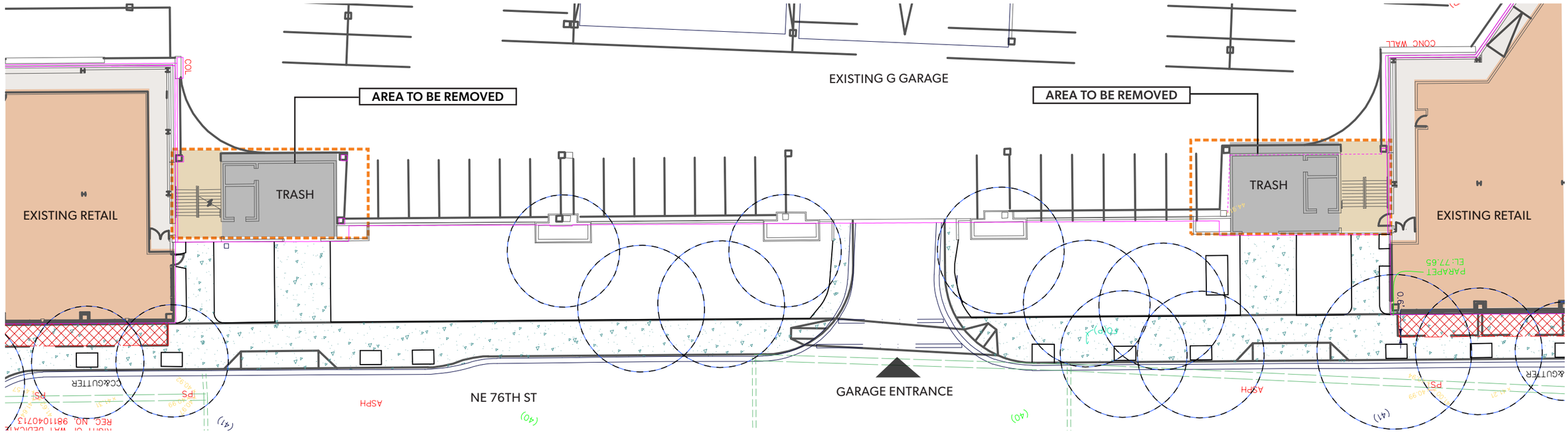
0' 40' 80'

New or relocated trash and back of house spaces will need to comply with current transparency and blank wall standards per. RZC 21.62.020.I. Street facing garage openings shall be designed to soften their appearance per. RZC 21.62.020.F.

LEGEND

- COMMERCIAL
- COMMON RESI AMENITY
- SERVICES
- CIRCULATION

EXISTING



EXISTING G GARAGE FLOOR PLAN
NTS

LEGEND

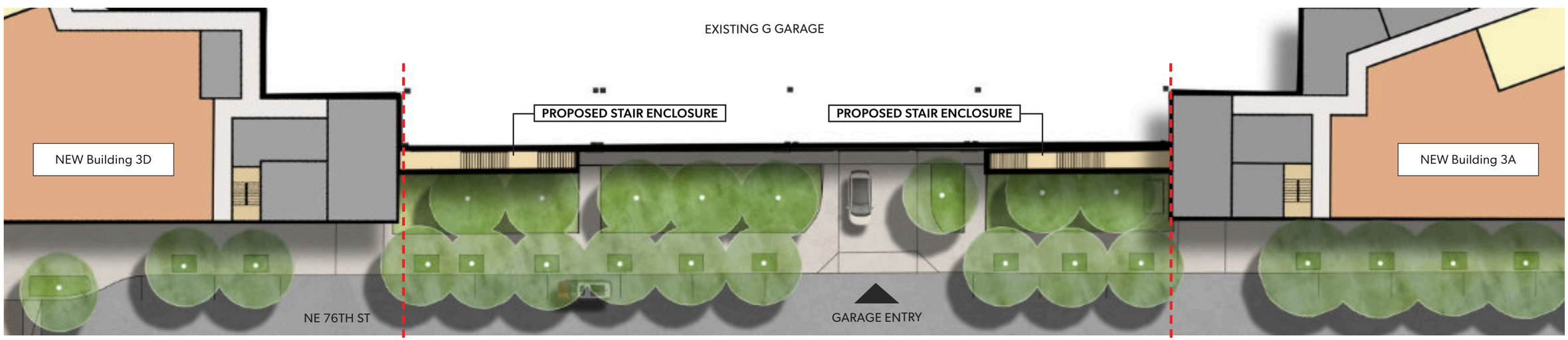
- COMMERCIAL
- COMMON RESI AMENITY
- SERVICES
- CIRCULATION

EXTERIOR UNSCREENED TRANSFORMER TO BE RELOCATED INTO THE NEW BUILDING.

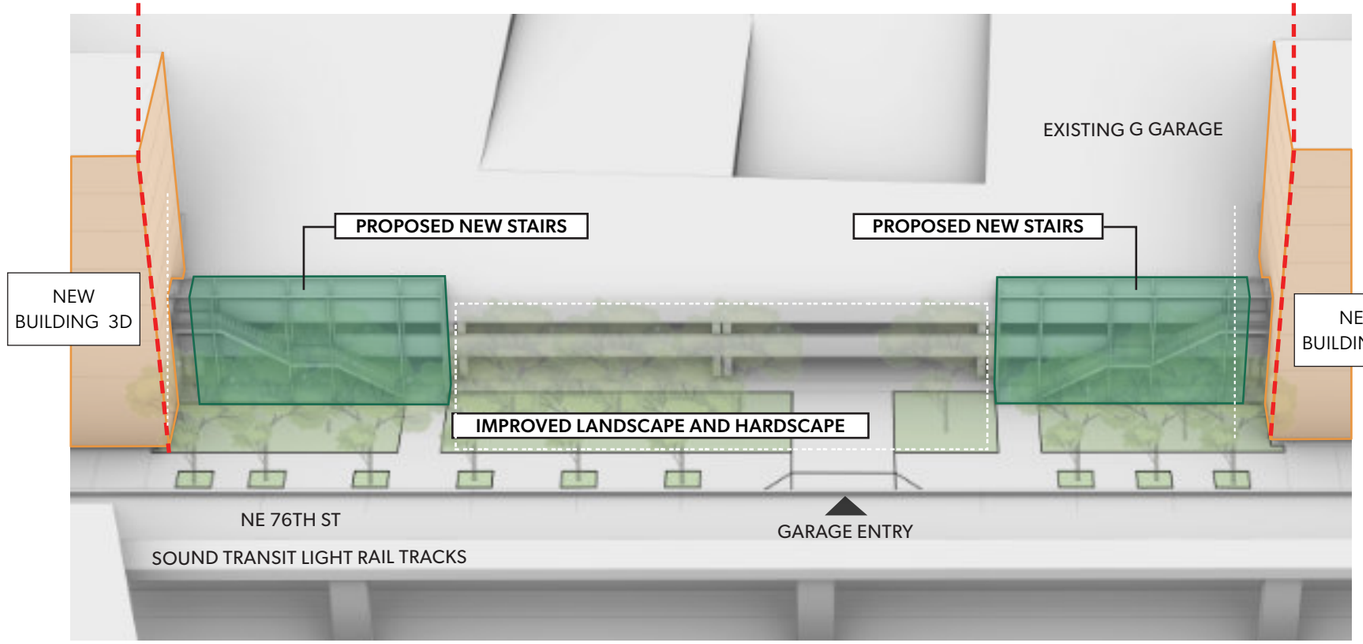
EXTERIOR TRASH ROOM AND BACK OF HOUSE SPACE TO BE RELOCATED INTO THE NEW BUILDING.

EXISTING G GARAGE NORTH FACADE
NTS

PROPOSED



PROPOSED G GARAGE FLOOR PLAN
NTS



PROPOSED G GARAGE NORTH FACADE
NTS

LEGEND

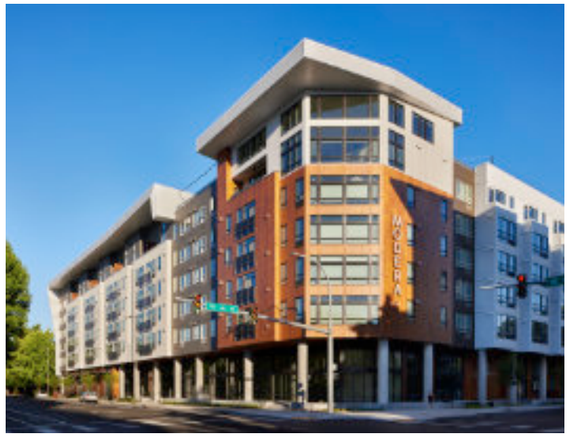
- COMMERCIAL
- COMMON RESI AMENITY
- SERVICES
- CIRCULATION

Extending the massing of buildings 3A and 3D along with exit stair enclosures and landscaping screening will screen most of the existing parking garage from the pedestrian realm.

See next page for Stair enclosure and landscape precedent imagery.

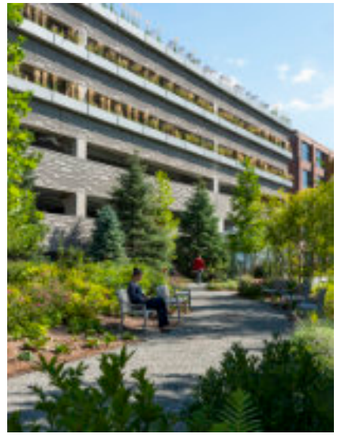
BUILDING G - GARAGE NORTH FACADE

GARAGE SCREENING AND LANDSCAPE PRECEDENT IMAGES



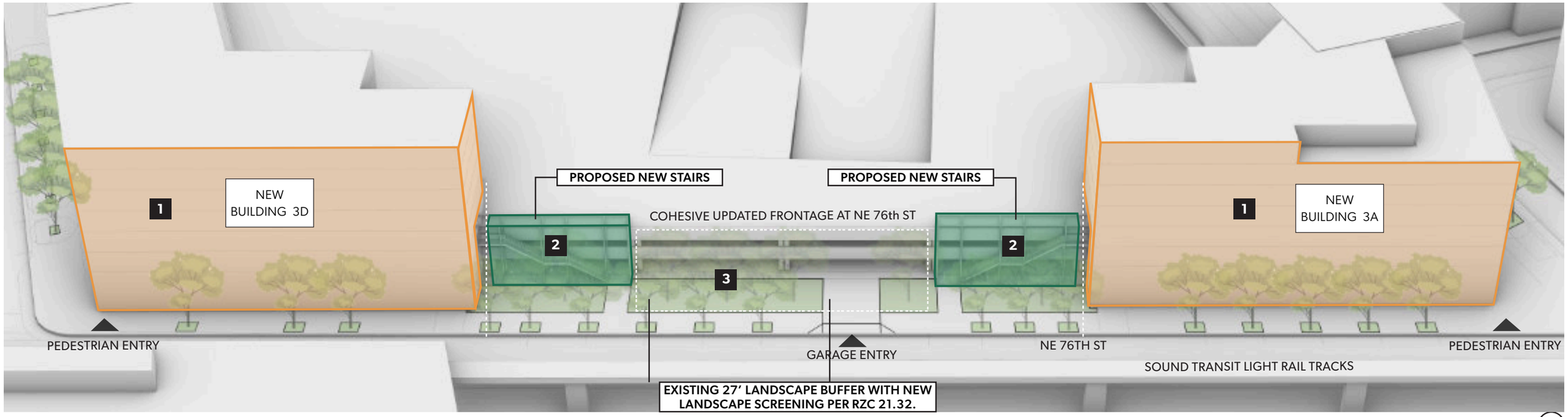
1 Multifamily Residential bookends existing parking garage and defines site gateway

2 New stair towers help to conceal existing garage while encouraging active use and contributing to Station Identity



3 New landscape design screens existing parking garage while contributing to a cohesive experience of the pedestrian realm on site

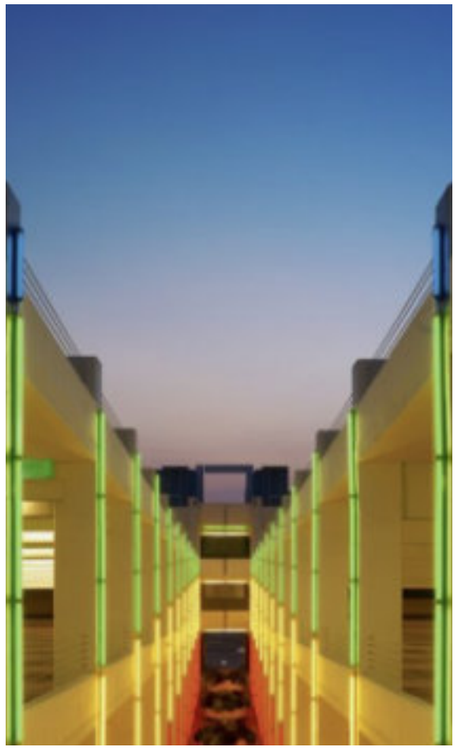
Proposed precedent imagery represents a design approach to showcase the movement of people, emphasize verticality, and create a playful active facade in place of horizontal concrete screening. Landscape precedent imagery include a layering of planting types and scales to soften and screen the existing exposed parking garage. While the final future design will differ some from the precedent imagery, it should reflect these goals. New development will need to show compliance with RZC requirements for transparency, blank walls, and parking garage landscape screening requirements.



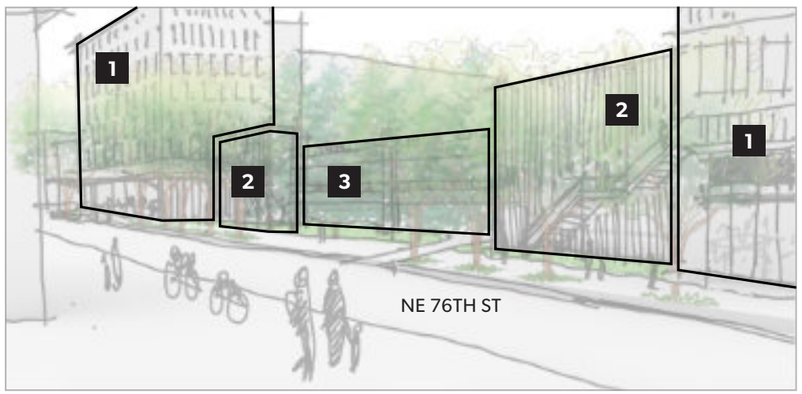
PROPOSED NE 76TH ST. ELEVATION WITH EXPANDED BUILDINGS AND STAIR ENCLOSURE

NTS

BUILDING G - PEDESTRIAN REALM AT NE 76TH STREET, DESIGN APPROACH



BALANCE OF ARCHITECTURE AND LANDSCAPE EXPRESSION



3 distinct zones that encourage movement through site

1 MULTIFAMILY RESIDENTIAL BUILDINGS BOOKEND THE BLOCK CREATING A STRONG INDICATION OF THE GATEWAY TO REDMOND TOWNCENTER. RETAIL AT THE BASE PULLS PEDESTRIANS TO THE CORNER AND INTO THE NEIGHBORHOOD.

2 STAIR TOWERS UTILIZE TRANSPARENCY, LIGHTING AND SIGNAGE TO PROVIDE SAFE PUBLIC ACCESS TO EXISTING GARAGE AND ENCOURAGE USE OF PEDESTRIAN PATH CONNECTING USERS TO GATEWAYS. FLOWERING TREES FILTER LIGHT, CREATING A BALANCE BETWEEN ARCHITECTURE AND LANDSCAPE.

3 EVERGREEN TREES AND NATIVE GROUND COVER ARE DENSELY PLANTED TO BOTH SCREEN EXISTING PARKING GARAGE AND EMPHASIZE PATHS FOR PEDESTRIAN AND VEHICULAR TRAVEL.

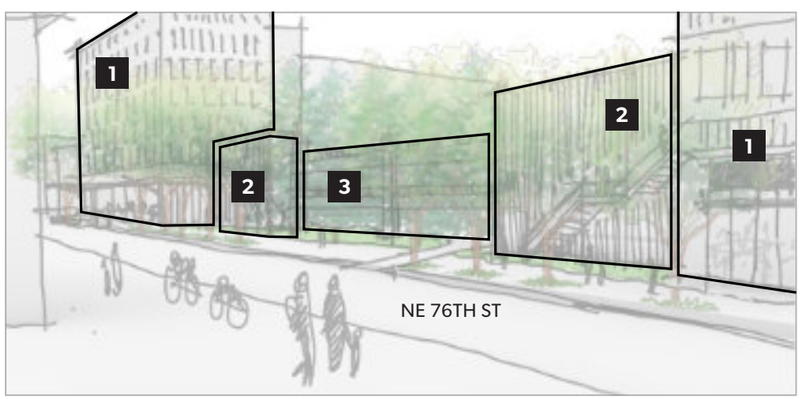
BUILDING G - PEDESTRIAN REALM AT NE 76TH STREET, LANDSCAPE DESIGN

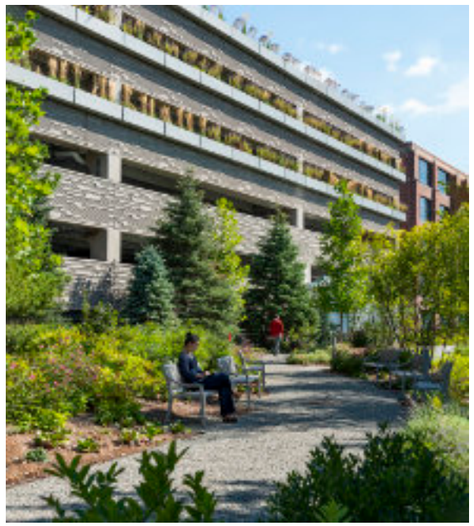
PLANTING AT MATURITY (12-15 YEARS)

1 Street Trees and Enhanced streetscape

2 Open habit native trees and dappled visibility to architectural features

PLANTING AT INSTALLATION





3 Dense evergreen screening and dense planting helps hide the parking garage structure and minimize the scale.

Exhibit D - Fee-in-Lieu Calculation

RTC Future Residential

Undelivered Affordable Units on Lot 4 if Office Goes First		
Total Units	**Market Rate**	**60% AMI**
258	206	52

Affordable Undelivered by Unit Type		
Unit Type	**Avg Unit Size**	**60 % AMI Count**
Studio	600	18
1 Bed	760	24
2 Bed	1150	7
3 Bed	1400	3
Total		**52**

Payment	
Fee in Lieu (per unit)	$288,700
Fee in Lieu (total)	**$15,012,389**

Payment - Average	
Fee in Lieu (per unit)	$288,700
Fee in Lieu (total)	**$15,012,389**

Other/Calcs

Market Rent	$3.50

Market Rate		
	Qty	Rent
Studio	18	$2,100
1BR	24	$2,660
2BR	7	$4,025
3BR	3	$4,900
Total	**52**	**$2,779**

Affordable		
	Qty	Rent
Studio	18	$1,548
1BR	24	$1,658
2BR	7	$1,990
3BR	3	$2,299
Total	**52**	**$1,702**

Delta			
	Qty	Rent	Utility Allowance
Studio	18	$552	$3,042
1BR	24	$1,002	$4,824
2BR	7	$2,035	$1,729
3BR	3	$2,601	$909
Total	**52**	**$1,078**	$10,504

RENT LIMITS--determined by bedrooms
LAND USE & MFTE PROJECTS EXECUTED AFTER MAY 1, 2019

Percentage of AMI	Studio	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom
30%	$ 774	$ 829	$ 995	$ 1,150	$ 1,282
35%	$ 903	$ 967	$ 1,161	$ 1,341	$ 1,496
40%	$ 1,032	$ 1,106	$ 1,327	$ 1,533	$ 1,710
45%	$ 1,161	$ 1,244	$ 1,492	$ 1,725	$ 1,924
50%	$ 1,290	$ 1,382	$ 1,658	$ 1,916	$ 2,137
55%	$ 1,419	$ 1,520	$ 1,824	$ 2,108	$ 2,351
60%	$ 1,548	$ 1,658	$ 1,990	$ 2,299	$ 2,565
65%	$ 1,677	$ 1,796	$ 2,156	$ 2,491	$ 2,778
70%	$ 1,806	$ 1,935	$ 2,322	$ 2,683	$ 2,992
75%	$ 1,935	$ 2,073	$ 2,487	$ 2,874	$ 3,206
80%	$ 2,064	$ 2,211	$ 2,653	$ 3,066	$ 3,420
85%	$ 2,193	$ 2,349	$ 2,819	$ 3,258	$ 3,633
90%	$ 2,322	$ 2,487	$ 2,985	$ 3,449	$ 3,847
95%	$ 2,451	$ 2,626	$ 3,151	$ 3,641	$ 4,061
100%	$ 2,580	$ 2,764	$ 3,317	$ 3,832	$ 4,275
105%	$ 2,708	$ 2,902	$ 3,482	$ 4,024	$ 4,488
110%	$ 2,837	$ 3,040	$ 3,648	$ 4,216	$ 4,702
120%	$ 3,095	$ 3,317	$ 3,980	$ 4,599	$ 5,130

1-person	1.5-person	3-person	4.5-person	6-person
0.7	0.75	0.9	1.04	1.16

Bellevue10, Broadstone Savoie, Ondina, and Vicino Apartments rent increases capped at 3%.

*Per 2021 Bellevue MFTE Rent Stabilization Policy

Income Delta - Rents	$672,384
Income Delta - Uilities	$126,048
Income Delta - Parking ($150/space)	$31,200
Vacancy@5%	($41,482)
Subtotal	**$788,150**
Capitalization	5.25%
Subtotal	**$15,012,389**

Per Unit	**$288,700**	**at Permit Issuance**
Per Unit	**$288,700**	**Average**

Redmond Town Center Master Planned Development

Redmond, WA

Traffic Impact Analysis

March 28, 2025

Prepared for:

Hines
10885 NE 4th Street, Suite 320
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03/28/25

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FINDINGS/CONCLUSIONS

This traffic impact analysis has been prepared for the proposed *Redmond Town Center Master Planned Development* project ("*RTC Master Plan*") in Redmond, WA.

Project Proposal. The proposed *RTC Master Plan* project includes the redevelopment of the portion of Redmond Town Center owned by Fairbourne Properties generally located north of Bear Creek Parkway and south of NE 76th Street between 166th Ave NE and 164th Ave NE.

The *RTC Master Plan* project is planned to be developed in five (5) phases. Phases 1 to 3 include a 2-story addition to an existing 2-story parking garage located on the west side of 164th Ave NE between NE 74th Street and NE 73rd Street as well as the redevelopment of the surface parking areas generally located on the south side of the site. Phases 4 and 5 include the conversion of the retail area generally located on the north side of the site to mixed-use development adjacent to 164th Ave NE and 166th Ave NE. The proposed project may be developed in one of two scenarios as summarized in the tables below, with the variable being redevelopment on Lot 4 (all residential vs. residential and office mix). The land use totals used in this analysis are "not to exceed" numbers that are intended to be conservative and account for any minor changes to land use totals that may occur as the project design progresses.

Land Use Summary – Scenario 1 (All Residential Option)

Land Use Category [1]	Phases 1 to 3	Full Buildout (Phases 1 to 5)
Master Plan Scenario 1:		
Residential proposed (DU)	700	1,020
Retail to remain (GLA)	385,255	296,169
Retail proposed (GLA)	29,000	63,000
Less Existing Building Area:		
Retail (GLA)	- 393,993	- 393,993
Net Change by Land Use:		
Residential (DU)	700	1,020
Retail (GLA)	20,262	- 34,824

1) DU = dwelling unit, GLA = gross leasable area.

Land Use Summary – Scenario 2 (Residential and Office Option)

Land Use Category	Phases 1 to 3	Full Buildout (Phases 1 to 5)
Master Plan Scenario 2:		
Residential proposed (DU)	425	745
Retail to remain (GLA)	385,255	296,169
Retail proposed (GLA)	27,600	61,600
Office proposed (GFA)	270,100	270,100
Less Existing Building Area:		
Retail (GLA)	- 393,993	- 393,993
Net Change by Land Use:		
Residential (DU)	425	745
Retail (GLA)	18,862	- 36,224
Office (GFA)	270,100	270,100

1) DU = dwelling unit, GLA = gross leasable area, GFA = gross floor area.

Primary vehicular access to the site would be provided via 164th Ave NE, 166th Ave NE, and NE 76th Street. Driveway locations for each phase/building are listed below:

- Phase 1 vehicular access to the expanded parking garage will continue to be provided via the existing driveways on 163rd Ave NE and NE 73rd Street.
- Phase 2 vehicular access to the Building 4IC East residential parking garage will be provided via new driveways on 166th Ave NE (garage access) and NE 73rd Way (loading access); access to the Building 4IC West residential/office parking garage will be provided via new driveways on 164th Ave NE (garage access) and NE 73rd Way (loading access).
- Phase 3 vehicular access to the Building 4B residential parking garage will be provided via a new driveway on NE 72nd Way (garage and loading access).
- Phases 4 and 5 vehicular access will be provided via the existing central parking garage driveways on 164th Ave NE, 166th Ave NE, and NE 76th Street.

Trip Generation. Trip generation estimates for each scenario are summarized in the table below.

Trip Generation Summary

	Scenario 1 (All Residential Option) Net New Trips Generated			Scenario 2 (Residential & Office Option) Net New Trips Generated		
Weekday Time Period	In	Out	Total	In	Out	Total
Phases 1 to 3						
Daily	968	969	1,937	2,050	2,051	4,101
AM Peak Hour	32	152	184	201	106	307
PM Peak Hour	76	2	78	44	152	196
Phases 4 to 5						
Daily	-397	-397	-794	-397	-397	-794
AM Peak Hour	-9	54	45	-11	53	42
PM Peak Hour	-35	-74	-109	-37	-77	-114
Full Buildout (Phases 1 to 5)						
Daily	571	572	1,143	1,653	1,654	3,307
AM Peak Hour	23	206	229	190	159	349
PM Peak Hour	41	-72	-31	7	75	82

Transportation Concurrency. A concurrency application has been submitted to the City of Redmond based on the Master Plan scenario with the highest net new Mobility Unit (MU) demand. The concurrency application shows that the proposed *RTC Master Plan* project would generate a net new MU demand of 2,036 net new mobility units with Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project. It is expected that the current MU supply will accommodate the additional MU demand created by the proposed *RTC Master Plan* project. Therefore, it is anticipated that a certificate of concurrency will be issued for the project.

Traffic Operations Analysis. A level of service (LOS) analysis was conducted at 27 off-site study intersections during the weekday PM peak hour. Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project is estimated to generate the highest number of net new weekday PM peak hour and daily trips. This is higher than Scenario 1 due to the addition of the 270,100-SF of office space on Lot 4 (Building 4IC) in comparison to Scenario 1 which includes primarily residential uses on Lot 4. It is also higher than conditions with Full Buildout of the MDP due to the proposed net reduction in retail square footage of approximately 55,000 SF associated with Phases 4 and 5.

In order to evaluate the highest potential impact for the proposed *RTC Master Plan* project, this traffic analysis evaluates traffic impacts associated with Phases 1 to 3 of Scenario 2 (Residential & Office Option).

Based on the results, all study intersections are expected to operate at LOS D or better in 2030 and 2034 with or without Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project during the weekday PM peak hour except for the following intersections.

- #2 – 148th Ave NE / Redmond Way (LOS E in 2034 only)
- #7 – West Lake Sammamish Pkwy / Leary Way (LOS E in 2030 and 2034)
- #18 – 170th Ave NE / Redmond Way (LOS E in 2030 and 2034)
- #19 – Bear Creek Crossing / Redmond Way (LOS E in 2034 only)
- #26 – 164th Ave NE / Bear Creek Parkway (LOS E in 2034 only)

Given the relatively low project impact from the *RTC Master Plan* project at these intersections, no project mitigation is proposed at these intersections.

Mitigation.

Frontage/Access/Multimodal Improvements. The proposed *RTC Master Plan* project would construct the following frontage/access/multimodal improvements:

- Phase 2
  - Re-channelization of 164th Ave NE and 166th Ave NE (between NE 76th Street and Bear Creek Parkway) to accommodate a new bike lane in one direction and shared lane markings in the other direction.
  - Re-channelization of NE 74th Street (between Bear Creek Parkway and 164th Ave NE) to accommodate a new bike lane in one direction and shared lane markings in the other direction.
  - Reconstruct existing parking lot drive aisle along the south side of Phase 2 to create a new NE 72nd Way private roadway (between 164th Ave NE and 166th Ave NE) including a raised mid-block pedestrian crossing.
  - Reconstruct existing parking lot drive aisle along the north side of Phase 2 to create a new NE 73rd Way private roadway (between 164th Ave NE and 166th Ave NE) including a raised mid-block pedestrian crossing.
  - Construct a publicly accessible linear plaza connecting NE 73rd Way with NE 72nd Way.
- Phase 3
  - Add on-street parking along a portion of NE 72nd Way.
  - Construct a new enhanced mid-block crossing on Bear Creek Parkway (mid-way between 164th Ave NE and 166th Ave NE).
  - Construct a publicly accessible linear plaza connecting NE 72nd Way with Bear Creek Parkway.
- Phases 4 and 5
  - Pedestrian/plaza improvements on NE 74th Street between 164th Ave NE and 166th Ave NE (pedestrian only street).
  - Intersection improvements (pedestrian improvements and potential raised intersection) at the following intersections:
    - 164th Ave NE / NE 74th Street
    - 166th Ave NE / NE 74th Street
    - 166th Ave NE / NE 76th Street

Off-Site Improvements. Based on the results of the analysis shown in this report, no project-specific off-site transportation mitigation is proposed for concurrency or SEPA purposes.

Transportation Impact Fees. Long-term traffic impacts in the City of Redmond are mitigated by the projects included in the City's Transportation Facilities Plan (TFP). The TFP projects are funded through the payment of City of Redmond transportation impact fees. Based on this process, a fee is assessed upon a development to pay for a proportionate share of the cost of public facilities needed to serve new growth and development. The final impact fee calculation will be based on the rates and project size in effect at the time of building permit issuance for each building within the Master Plan.

INTRODUCTION

This traffic impact analysis has been prepared for the proposed *Redmond Town Center Master Planned Development* project ("RTC Master Plan") in Redmond, WA. A vicinity map showing the location of the site and the surrounding area is included in Figure 1.

Project Description

The proposed *RTC Master Plan* project includes the redevelopment of the portion of Redmond Town Center owned by Fairbourne Properties generally located north of Bear Creek Parkway and south of NE 76th Street between 166th Ave NE and 164th Ave NE. The *RTC Master Plan* project is planned to be developed in five (5) phases. Phases 1 to 3 include a 2-story addition to an existing 2-story parking garage located on the west side of 164th Ave NE between NE 74th Street and NE 73rd Street as well as the redevelopment of the surface parking areas generally located on the south side of the site. Phases 4 and 5 include the conversion of the retail area generally located on the north side of the site to mixed-use development adjacent to 164th Ave NE and 166th Ave NE. The proposed project may be developed in one of two scenarios as summarized in the tables below, with the variable being redevelopment on Lot 4 (all residential vs. residential and office mix). The land use totals used in this analysis are "not to exceed" numbers that are intended to be conservative and account for any minor changes to land use totals that may occur as the project design progresses.

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Retail (GLA)	- 393,993	- 393,993
Net Change by Land Use:		
Residential (DU)	700	1,020
Retail (GLA)	20,262	- 34,824

1) DU = dwelling unit, GLA = gross leasable area.

Land Use Summary – Scenario 2 (Residential and Office Option)

Land Use Category	Phases 1 to 3	Full Buildout (Phases 1 to 5)
Master Plan Scenario 2:		
Residential proposed (DU)	425	745
Retail to remain (GLA)	385,255	296,169
Retail proposed (GLA)	27,600	61,600
Office proposed (GFA)	270,100	270,100
Less Existing Building Area:		
Retail (GLA)	- 393,993	- 393,993
Net Change by Land Use:		
Residential (DU)	425	745
Retail (GLA)	18,862	- 36,224
Office (GFA)	270,100	270,100

1) DU = dwelling unit, GLA = gross leasable area, GFA = gross floor area.

Primary vehicular access to the site would be provided via 164th Ave NE, 166th Ave NE, and NE 76th Street. Driveway locations for each phase/building are listed below:

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- Phase 3 vehicular access to the Building 4B residential parking garage will be provided via a new driveway on NE 72nd Way (garage and loading access).
- Phases 4 and 5 vehicular access will be provided via the existing central parking garage driveways on 164th Ave NE, 166th Ave NE, and NE 76th Street.

For the purposes of this traffic study, Phases 1 to 3 of the proposed project are expected to be complete by 2030. Full project buildout is assumed to be complete by 2034.

Preliminary site plans from the Master Plan document are included in Appendix A. Appendix B includes a detailed breakdown of building area assumptions for each phase and scenario.

Figure 1: Project Site Vicinity

Project Approach

The specific scope items used in the evaluation of traffic impacts were discussed and confirmed by City staff. To analyze the traffic impacts from the *RTC Master Plan* project, the following tasks were undertaken:

- Assessed existing conditions through field reconnaissance and reviewed existing planning documents.
- Described existing roads, non-motorized facilities, and transit facilities in the project vicinity.
- Documented traffic crashes in the project vicinity.
- Documented existing traffic volumes and intersection LOS during the weekday PM peak hour.
- Documented future planned roadway improvements in the project vicinity.
- Developed weekday daily, AM, and PM peak hour trip generation estimates.
- Assigned weekday PM peak hour project-generated trips (Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project).
- Analyzed weekday PM peak hour LOS for future conditions in 2030 and 2034 without and with the project at the following study intersections:
    1. 140th Ave NE / Redmond Way (signal)
    2. 148th Ave NE / Redmond Way (signal)
    3. Willows Road NE / Redmond Way (signal)
    4. West Lake Sammamish Pkwy NE / Redmond Way (signal)
    5. Bear Creek Pkwy / Redmond Way (signal)
    6. Bear Creek Pkwy / 161st Ave NE (signal)
    7. West Lake Sammamish Parkway NE / Leary Way (signal)
    8. 159th Place NE / Leary Way (signal)
    9. Bear Creek Pkwy / Leary Way (signal)
    10. Bear Creek Pkwy / NE 74th Street (signal)
    11. 164th Ave NE / NE 85th Street (signal)
    12. 164th Ave NE / NE 83rd Street (signal)
    13. 164th Ave NE / NE 80th Street (signal)
    14. 164th Ave NE / Redmond Way (signal)
    15. 164th Ave NE / Cleveland Street (signal)
    16. 166th Ave NE / Cleveland Street (signal)
    17. 170th Ave NE / NE 76th Street (signal)
    18. 170th Ave NE / Redmond Way (signal)
    19. Bear Creek Crossing / Redmond Way (signal)
    20. NE 76th Street / Redmond Way (signal)
    21. SR 520 Off Ramp / Redmond Way (signal)
    22. 164th Ave NE / NE 76th Street (roundabout)
    23. 166th Ave NE / NE 76th Street (all-way stop controlled)
    24. 164th Ave NE / NE 74th Street (all-way stop controlled)
    25. 166th Ave NE / NE 74th Street (all-way stop controlled)
    26. 164th Ave NE / Bear Creek Pkwy (two-way stop controlled)
    27. 166th Ave NE / Bear Creek Pkwy (two-way stop controlled)
- Documented proposed traffic mitigation including frontage/access/multimodal improvements, off-site improvements, and payment of transportation impact fees.

Primary Data and Information Sources

- Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.
- Institute of Transportation Engineers (ITE), *Trip Generation Handbook*, 3rd Edition, 2017.
- WSDOT crash data, January 1, 2021 to December 31, 2023.
- 2023 and 2024 PM peak hour traffic counts, IDAX and ATD.
- City of Redmond 2025-2030 TIP, 2013-2030 TFP, and Transportation Master Plan.
- *Highway Capacity Manual (HCM),* 7th Edition, 2022.

EXISTING CONDITIONS

Study Area

Based on the results of scoping with the City of Redmond, the following 27 off-site study intersections are included in this traffic impact analysis:

1. 140th Ave NE / Redmond Way (signal)
2. 148th Ave NE / Redmond Way (signal)
3. Willows Road NE / Redmond Way (signal)
4. West Lake Sammamish Pkwy NE / Redmond Way (signal)
5. Bear Creek Pkwy / Redmond Way (signal)
6. Bear Creek Pkwy / 161st Ave NE (signal)
7. West Lake Sammamish Parkway NE / Leary Way (signal)
8. 159th Place NE / Leary Way (signal)
9. Bear Creek Pkwy / Leary Way (signal)
10. Bear Creek Pkwy / NE 74th Street (signal)
11. 164th Ave NE / NE 85th Street (signal)
12. 164th Ave NE / NE 83rd Street (signal)
13. 164th Ave NE / NE 80th Street (signal)
14. 164th Ave NE / Redmond Way (signal)
15. 164th Ave NE / Cleveland Street (signal)
16. 166th Ave NE / Cleveland Street (signal)
17. 170th Ave NE / NE 76th Street (signal)
18. 170th Ave NE / Redmond Way (signal)
19. Bear Creek Crossing / Redmond Way (signal)
20. NE 76th Street / Redmond Way (signal)
21. SR 520 Off Ramp / Redmond Way (signal)
22. 164th Ave NE / NE 76th Street (roundabout)
23. 166th Ave NE / NE 76th Street (all-way stop controlled)
24. 164th Ave NE / NE 74th Street (all-way stop controlled)
25. 166th Ave NE / NE 74th Street (all-way stop controlled)
26. 164th Ave NE / Bear Creek Pkwy (two-way stop controlled)
27. 166th Ave NE / Bear Creek Pkwy (two-way stop controlled)

Roadway Network

Table 1 describes the existing characteristics of the streets that would be used as primary routes to and from the site. Roadway characteristics are described in terms of orientation, arterial classification, posted speed limits, parking, sidewalks, and bicycle facilities. The relationship of these roadways to the project site is shown in Figure 1.

Table 1
Existing Roadway Network Summary

Roadway	Orientation	Arterial Classification[1]	# of Travel Lanes	Posted Speed Limit	Parking	Sidewalks	Bicycle Facilities
Redmond Way	E/W	Principal / Minor Arterial	3-5	30-45	Intermittent	Both Sides	None
Bear Creek Parkway	E/W	Principal Arterial	3	30	South Side	Both Sides	Bear Creek Trail
Cleveland Street	E/W	Collector Arterial	2	25	Both Sides	Both Sides	Sharrows
NE 74th Street	E/W	Private Local Street	2	10	Both Sides	Both Sides	None
NE 76th Street	E/W	Connector Street	2	25	South Side	South Side, Intermittent North Side	None
Leary Way NE	SW/NE	Minor Arterial	2-4	25	Between Cleveland and 80th	Both Sides	None
164th Ave NE	N/S	Minor Arterial (Private s/o 76th)	2-3	10-30	Intermittent (south of 76th)	Both Sides	Bike Lanes (north of 80th) Sharrows (south of 80th)
166th Ave NE	N/S	Collector Arterial (Private s/o 76th)	2-3	10-30	Intermittent (south of 76th)	Both Sides	Bike Lanes (north of 80th) Sharrows (south of 80th)

Transit Service

Transit service to and from the project vicinity is provided by King County Metro Transit and Sound Transit. The *Redmond Town Center* Master Plan Development project is located adjacent to the future Sound Transit Line 2 Light Rail elevated Downtown Redmond Station that is tentatively scheduled to open in 2025. Additionally, the *Redmond Town Center* Master Plan Development project is located approximately 0.5 miles south of the Redond Transit Center. Transit stops along Bear Creek Parkway, 166th Ave NE, and Redmond Way as well as the Redmond Transit Center are served by Sound Transit and King County Metro Routes listed below.

Sound Transit

- 545 (Overlake/Downtown Seattle & Bear Creek P&R)
- 542 (University District)

King County Metro

- 930 (Kingsgate P&R & Redmond Town Center)
- 250 (Avondale-Redmond TC-Kirkland TC-Bellevue TC)
- 224 (Duvall-Redmond TC)
- 221 (Education Hill and Eastgate P&R)

Non-Motorized Transportation Facilities

Pedestrian facilities in the immediate project vicinity include sidewalks along both sides of 164th Ave NE, 166th Ave NE, NE 74th Street, and NE 76th Street, and along the north side of Bear Creek Parkway. NE 74th Street is a pedestrian-only street between 164th Ave NE and 166th Ave NE. Other pedestrian facilities include curb ramps and crosswalks at signalized and unsignalized intersections. Bicycle facilities in the project vicinity include bike sharrows on the public section of 164th Ave NE (south of 80th) and bike lanes on the public section of 166th Ave NE (south of 80th). Additionally, the Redmond Central Connector/Eastrail trail (north side of the site) and Bear Creek multi-use trail (south side of the site) are located adjacent to the project site and provide a protected trail for pedestrians and bicycles.

Crash History

Crash history at the 27 off-site study intersections was analyzed for the 3-year period from 2021 to 2023 (the most recent 3-year period as provided by WSDOT). Summaries of the total and yearly average during this period are provided in Table 2. Summaries of crashes by type over the 3-year period are provided in Table 3. WSDOT crash data is included in Appendix C.

Table 2
Crash Data Summary by Type, January 1, 2021 to December 31, 2023

Study Intersection	2021	2022	2023	3-Year Total Crashes	Average Annual Crash Rate	Daily Entering Vehicles [1]	Crashes per MEV [2]
1. 140th Ave NE/Redmond Way	1	3	5	9	3.00	28,832	0.29
2. 148th Ave NE/Redmond Way	5	9	14	28	9.33	41,257	0.62
3. Willows Road NE/Redmond Way	2	5	5	12	4.00	29,663	0.37
4. West Lake Sammamish Pkwy NE/Redmond Way	7	6	2	15	5.00	32,782	0.42
5. Bear Creek Pkwy/Redmond Way	0	4	1	5	1.67	25,921	0.18
6. Bear Creek Pkwy/161st Ave NE	0	0	0	0	0.00	10,693	0.00
7. West Lake Sammamish Pkwy NE/Leary Way	6	7	10	23	7.67	45,792	0.46
8. 159th Place NE/Leary Way	0	1	0	1	0.33	20,604	0.04
9. Bear Creek Pkwy/Leary Way	2	2	3	7	2.33	26,257	0.24
10. Bear Creek Pkwy/NE 74th Street	1	0	0	1	0.33	16,683	0.05
11. 164th Ave NE/NE 85th Street	0	3	1	4	1.33	17,772	0.21
12. 164th Ave NE/NE 83rd Street	1	1	2	4	1.33	13,485	0.27
13. 164th Ave NE/NE 80th Street	3	2	1	6	2.00	13,168	0.42
14. 164th Ave NE/Redmond Way	3	5	5	13	4.33	18,762	0.63
15. 164th Ave NE/Cleveland Street	1	2	1	4	1.33	8,149	0.45
16. 166th Ave NE/Cleveland Street	1	1	0	2	0.67	7,752	0.24
17. 170th Ave NE/NE 67th Street	0	2	1	3	1.00	15,743	0.17
18. 170th Ave NE/Redmond Way	2	4	8	14	4.56	33,366	0.38
19. Bear Creek Crossing/Redmond Way	2	0	1	3	1.00	28,446	0.10
20. NE 76th Street/Redmond Way	5	0	6	11	3.67	33,416	0.30
21. SR 520 Off Ramp/Redmond Way	6	4	3	13	4.33	32,386	0.37
22. 164th Ave NE/NE 76th St	0	0	1	1	0.33	7,663	0.12
23. 166th Ave NE/NE 76th St	0	0	0	0	0.00	6,871	0.00
24. 164th Ave NE/NE 74th St	1	0	0	1	0.33	3,277	0.28
25. 166th Ave NE/NE 74th St	0	0	0	0	0.00	3,069	0.00
26. 164th Ave NE/Bear Creek Pkwy	0	0	0	0	0.00	14,545	0.00
27. 166th Ave NE/Bear Creek Pkwy	0	2	0	2	0.67	13,861	0.13

Source: WSDOT Crash Data.

[1] Estimated based on assumption that PM peak hour volumes = 10% of daily entering vehicles.

[2] MEV = Million Entering Vehicles.

Table 3
Crash Data Summary by Type, January 1, 2021 to December 31, 2023

Study Intersection	3-Year Total Crashes	Average Annual Crash Rate	Crash Type							
			Angle (Left/Right)	Angle (T)	Head-On	Other	Parked Veh/Fixed Object	Ped/Bike	Rear End	Sideswipe
1. 140th Ave NE/Redmond Way	9	3.00	0	1	0	0	0	0	0	0
2. 148th Ave NE/Redmond Way	28	9.33	1	5	0	0	0	0	3	0
3. Willows Road NE/Redmond Way	12	4.00	0	1	0	0	1	0	1	1
4. West Lake Sammamish Pkwy NE/Redmond Way	15	5.00	2	1	0	0	0	0	1	1
5. Bear Creek Pkwy/Redmond Way	5	1.67	1	1	0	0	0	0	0	0
6. Bear Creek Pkwy/161st Ave NE	0	0.00	0	0	0	0	0	0	0	0
7. West Lake Sammamish Pkwy NE/Leary Way	23	7.67	0	2	0	0	0	0	6	0
8. 159th Place NE/Leary Way	1	0.33	0	0	0	0	0	0	0	0
9. Bear Creek Pkwy/Leary Way	7	2.33	1	0	0	0	0	0	1	0
10. Bear Creek Pkwy/NE 74th Street	1	0.33	0	0	0	0	0	0	0	0
11. 164th Ave NE/NE 85th Street	4	1.33	0	1	0	0	0	0	0	0
12. 164th Ave NE/NE 83rd Street	4	1.33	0	1	0	0	0	0	0	0
13. 164th Ave NE/NE 80th Street	6	2.00	0	2	0	0	0	0	0	0
14. 164th Ave NE/Redmond Way	13	4.33	1	1	0	0	0	0	2	0
15. 164th Ave NE/Cleveland Street	4	1.33	0	1	0	0	0	0	0	0
16. 166th Ave NE/Cleveland Street	2	0.67	1	0	0	0	0	0	0	0
17. 170th Ave NE/NE 67th Street	3	1.00	0	0	0	0	0	0	0	0
18. 170th Ave NE/Redmond Way	14	4.56	1	2	0	0	0	0	1	0
19. Bear Creek Crossing/Redmond Way	3	1.00	0	0	0	0	0	0	0	0
20. NE 76th Street/Redmond Way	11	3.67	1	1	0	0	0	0	1	0
21. SR 520 Off Ramp/Redmond Way	13	4.33	0	2	0	0	0	0	2	0
22. 164th Ave NE/NE 76th St	1	0.33	0	0	0	0	0	0	0	0
23. 166th Ave NE/NE 76th St	0	0.00	0	0	0	0	0	0	0	0
24. 164th Ave NE/NE 74th St	1	0.33	0	0	0	0	0	0	0	0
25. 166th Ave NE/NE 74th St	0	0.00	0	0	0	0	0	0	0	0
26. 164th Ave NE/Bear Creek Pkwy	0	0.00	0	0	0	0	0	0	0	0
27. 166th Ave NE/Bear Creek Pkwy	2	0.67	0	1	0	0	0	0	0	0

Source: WSDOT Crash Data.

Traffic Volumes

Existing weekday PM peak hour traffic volumes at the study intersections were based on counts conducted in 2023 and 2024. To estimate existing 2025 traffic volumes, a 2 percent annual growth rate was applied to the 2023 and 2024 traffic volumes. Figure 2 illustrates the locations of the off-site study intersections included in this analysis, while Figure 3 illustrates the existing 2025 PM peak hour traffic volumes at the study intersections. The detailed PM peak hour turning movement count sheets are provided in Appendix D.

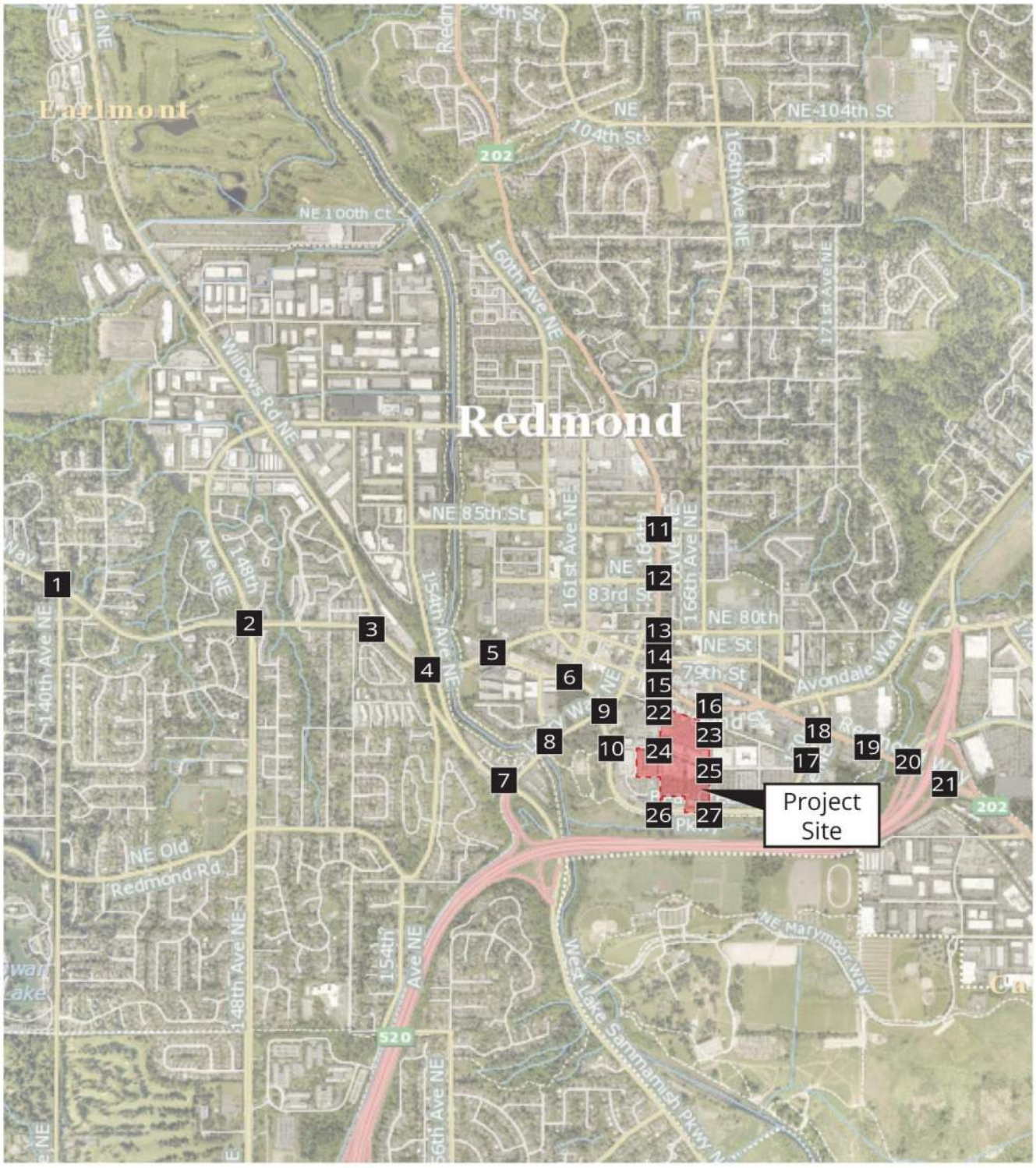


Figure 2: Study Intersections Map

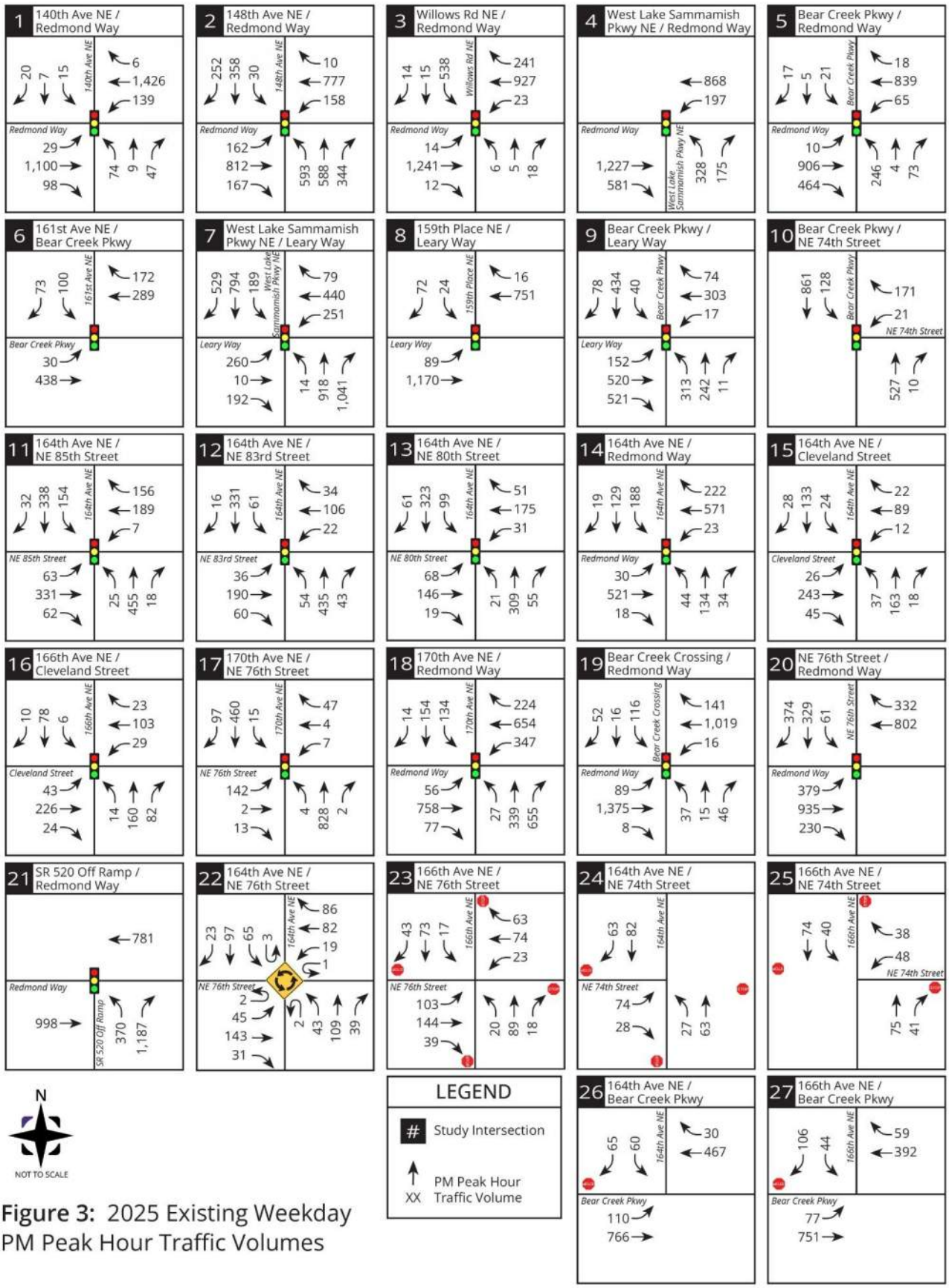


Figure 3: 2025 Existing Weekday PM Peak Hour Traffic Volumes

Intersection Levels of Service

An existing weekday PM peak hour level of service (LOS) analysis was conducted the study intersections. Level of service calculations for intersections were based on the use of *Synchro 12* traffic analysis software. LOS methodology is included in Appendix E. Existing signal timing used in the analysis was based on Synchro files provided by the City of Redmond. The 2025 existing weekday PM peak hour LOS analysis results at the study intersections are summarized in Table 4. The 2025 existing detailed LOS worksheets are included in Appendix E.

Table 4
Existing 2025 Weekday PM Peak Hour LOS Summary

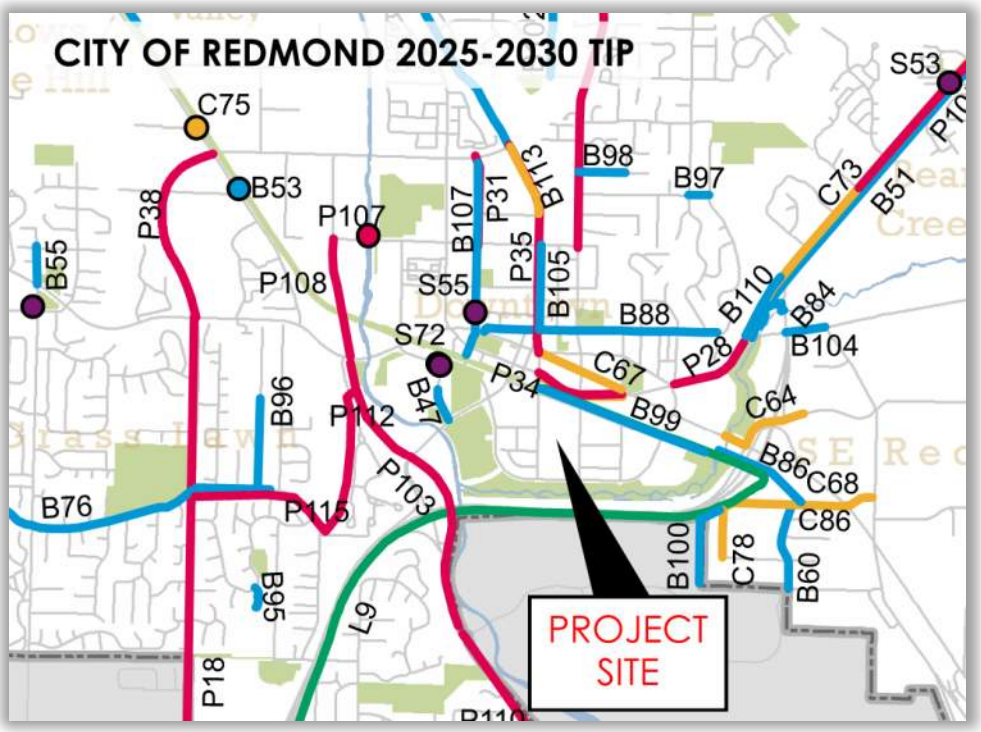
Study Intersection	LOS	Delay (sec)
Signalized Intersections:		
1. 140th Ave NE/Redmond Way	B	17.2
2. 148th Ave NE/Redmond Way	D	47.7
3. Willows Rd NE/Redmond Way	D	37.1
4. West Lake Sammamish Pkwy NE/Redmond Way	B	12.3
5. Bear Creek Pkwy/Redmond Way	B	12.4
6. Bear Creek Pkwy/161st Ave NE	B	16.7
7. West Lake Sammamish Pkwy NE/Leary Way	D	50.3
8. 159th Pl NE/Leary Way	B	14.2
9. Bear Creek Pkwy/Leary Way	D	41.0
10. Bear Creek Pkwy/NE 74th St	B	10.7
11. 164th Ave NE/NE 85th St	C	28.9
12. 164th Ave NE/NE 83rd St	B	15.8
13. 164th Ave NE/NE 80th St	B	18.8
14. 164th Ave NE/Redmond Way	C	20.4
15. 164th Ave NE/Cleveland St	B	18.5
16. 166th Ave NE/Cleveland St	B	11.7
17. 170th Ave NE/NE 76th St	B	10.4
18. 170th Ave NE/Redmond Way	D	45.4
19. Bear Creek Crossing/Redmond Way	C	33.8
20. NE 76th St/Redmond Way	B	13.2
21. SR 520 Off-Ramp/Redmond Way	C	20.6
Roundabout Intersections:		
22. 164th Ave NE/NE 76th St	A	5.5
All-Way Stop-Controlled Intersections:		
23. 166th Ave NE/NE 76th St	B	10.2
24. 164th Ave NE/NE 74th St	A	8.1
25. 166th Ave NE/NE 74th St	A	7.9
Two-Way Stop-Controlled Intersections:		
26. 164th Ave NE/Bear Creek Pkwy		
Eastbound Left-Turn	A	8.9
Southbound Left-Turn	D	25.3
Southbound Right-Turn	B	12.5
27. 166th Ave NE/Bear Creek Pkwy		
Eastbound Left-Turn	A	8.7
Southbound Left-Turn	C	20.5
Southbound Right-Turn	B	12.7

As shown in Table 4, all of the study intersections currently operate at LOS D or better during the weekday PM peak hour.

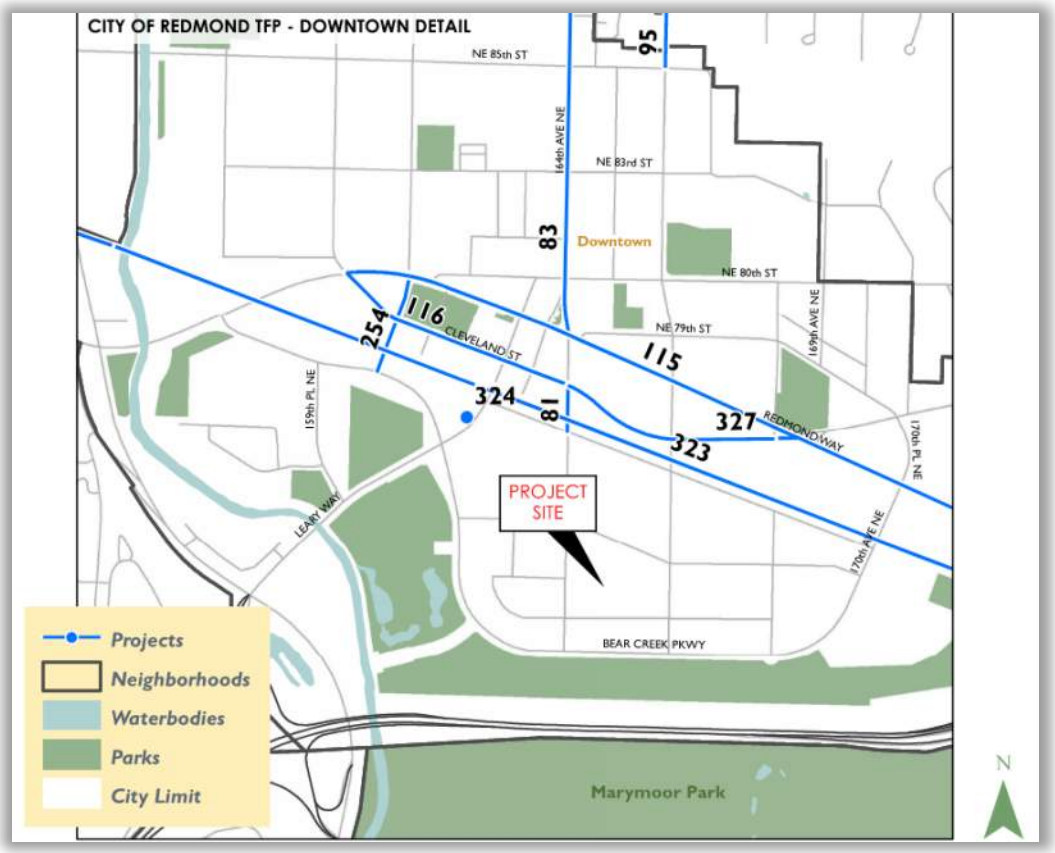
FUTURE CONDITIONS

Planned Transportation Improvements

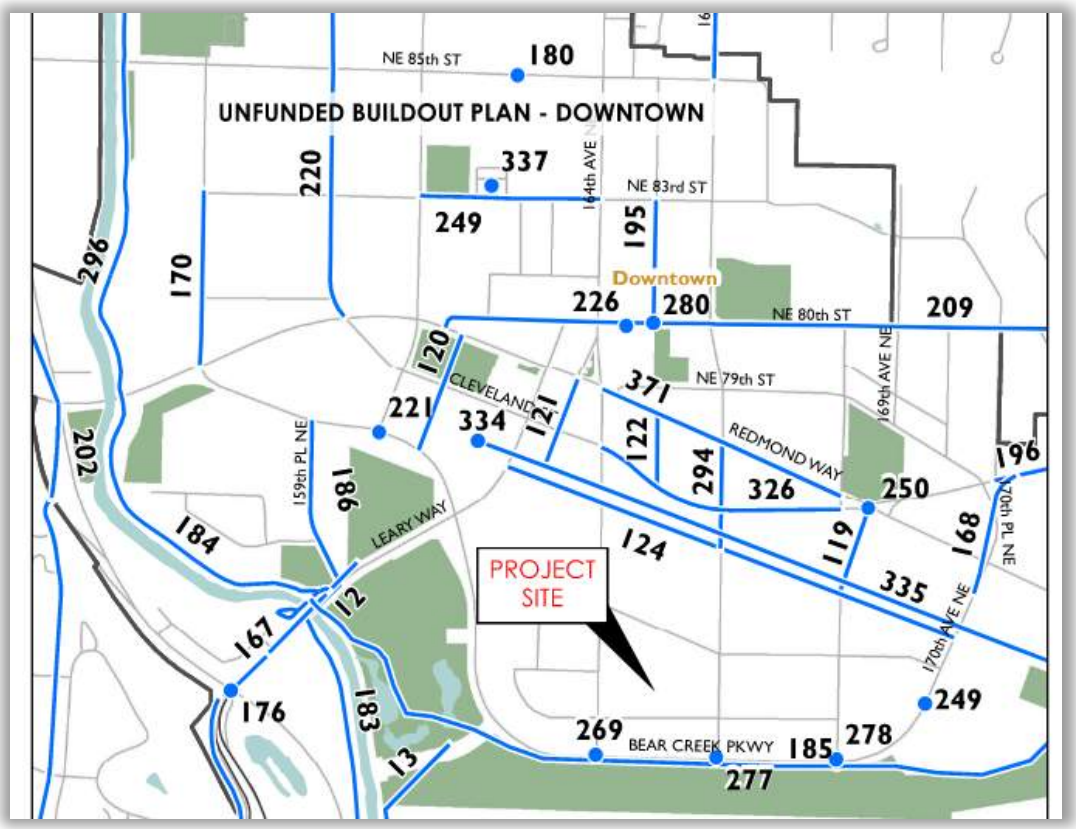
Based on a review of the currently proposed City of Redmond Six Year 2025-2030 Transportation Improvement Program (TIP) and the City of Redmond *Transportation Master Plan* (updated August 2017) including the *Transportation Facilities Plan (2013-2030)* and *Unfunded Buildout Plan*, the following section describes the transportation improvement projects that are planned in the immediate project vicinity. The project maps from the TIP, TFP, and Unfunded Buildout Plan are shown below. There are numerous planned projects in the Downtown area, so the list below only includes those most relevant to the *Redmond Town Center* Master Plan Development project.



- TIP Project B99 (Redmond Central Connector Improvements - Sound Transit Betterments) – This project would implement the ultimate design of the Redmond Central Connector between 164th Avenue NE and the Bear Creek Trail and connection trail to Redmond Way/SR202 at NE 76th St.
- TIP Project P34 (Cleveland Street Sidewalk Rehabilitation - 164th Ave NE to 168th Ave NE) – This project would replace broken and heaved sidewalk panels on Cleveland Street between 164th Avenue NE and 168th Avenue NE. This project will not be necessary if Project B43 (Cleveland Street East Main Street Improvements) is constructed.
- TIP Project P35 (164th Ave NE Sidewalk Rehabilitation - Redmond Way to NE 90th St) – This project would remove and replace sidewalk and street trees on both sides of 164th Ave NE between Redmond Way and NE 90th St.
- TIP Project C67 (Redmond Way Westbound Right Turn Lane) – This project would construct a second westbound lane on Redmond Way that transitions to right turn lane at 164th Ave NE where not completed by adjacent development.



- TFP Project 81 (164th Ave NE Extension) – Construct new 164th Ave NE from NE 76th St to Cleveland St (project complete).
- TFP Project 323 (Redmond Central Connector Segment 1) – This project would complete the Redmond Central Connector between the Bear Creek Trail and Sammamish River Trail.
- TFP Project 324 (Downtown Shared Parking Facility) – This project includes a shared parking facility at the intersection of Leary Wy and Bear Creek Parkway.
- TFP Project 327 (Cleveland Street Sidewalk Rehabilitation) – This project would replace sidewalks between 164th Avenue NE and 168th Avenue NE.



- Unfunded Buildout Plan Project 119 (Avondale Way Extension) – Construct new north/south connection between Redmond Way and NE 76th Street. Improvements include one lane in each direction, sidewalks, bicycle lanes, utilities, street lights, trees, signs, and stormwater treatments.
- Unfunded Buildout Plan Project 124 (NE 76th Street Ped Improvements) – This project would improve NE 76th St from Leary Way to 170th Ave NE to create a lively and active street.
- Unfunded Buildout Plan Project 185 (Bear Creek Trail Widening) – This project would provide an east west route through Downtown for through cyclists by widening the trail to 12 to 14 feet with good sight lines and limited curve radii.
- Unfunded Buildout Plan Project 249 (Flashing Beacon Upgrade) – This project would upgrade smart studs at four locations: (1) 161st Ave NE from NE 87th Street to NE 90th Street; (2) and (3) NE 83rd Street from 161st Ave NE to 164th Ave NE; (4) Bear Creek Pkwy at NE 75th Street.
- Unfunded Buildout Plan Project 269 (Bear Creek Parkway & 164th Ave NE Flashing Beacon) – This project would install flashing beacon at the existing pedestrian crossing from Bear Creek trail and include center median island on east side of intersection.
- Unfunded Buildout Plan Project 277 (Bear Creek Parkway & 166th Ave NE Crosswalk) – This project would install crosswalk on west leg, providing access to Bear Creek trail (project complete).
- Unfunded Buildout Plan Project 278 (Bear Creek Parkway & 168th Ave NE Crosswalk) – This project would install crosswalk on west leg, providing access to Bear Creek trail.
- Unfunded Buildout Plan Project 294 (166th Ave NE Bike Connection) – This project would construct bicycle lanes.

- Unfunded Buildout Plan Project 326 (Cleveland Street East) – This project would improve Cleveland Street to a pedestrian-friendly Main Street.
- Unfunded Buildout Plan Project 334 (Downtown Redmond Light Rail Station) – This project would Construct a light rail station on the East Link line, including station platforms and entryways, and amenities including art, high quality pedestrian access and bicycle parking.
- Unfunded Buildout Plan Project 335 (East Link Phase II) – Connect existing East Link light rail line from Overlake Transit Center Station to Downtown Redmond Station.

Project Trip Generation

Trip generation estimates for weekday daily, AM peak hour, and PM peak hour for the proposed and existing uses were based on methodology documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition for land use codes (LUC) 221 (Multifamily Housing (Mid Rise) - Close to Rail Transit), 820 (Shopping Center (>150k)), and 710 (General Office Building).

The 'Dense Multi-Use Urban' setting was used where applicable in the trip generation estimates. Given recent developments that have added more density to the downtown Redmond area along with new pedestrian facilities providing pedestrian connectivity and the imminent start of light rail service, downtown Redmond would fit within ITE's definition for 'Dense Multi-Use Urban' given below.

> **Dense Multi-Use Urban**—a fully-developed area (or nearly so), with diverse and interacting complementary land uses, good pedestrian connectivity, and convenient and frequent transit. This area type can be a well-developed urban area outside a major metropolitan downtown or a moderate size urban area downtown. The land use mix typically includes office, retail, residential, and often entertainment, hotel, and other commercial uses. The residential uses are typically multifamily or single-family on lots no larger than one-fourth acre. The commercial uses often have little or no setback from the sidewalk. Because the motor vehicle still represents the primary mode of travel to and from the area, there typically is on-street parking and often off-street public parking. The complementary land uses provide the opportunity for short trips within the Dense Multi-Use Urban area, made convenient by walking, biking, or transit. The area is served by significant transit (either rail or bus) that enables a high level of transit usage to and from area development.

Adjustments to the trip generation estimates were also made to account for pass-by trips and internal trips.

Pass-by trips are trips that are made by vehicles that are already on the adjacent streets and make intermediate stops at retail and restaurant uses enroute to a primary destination (e.g. on the way from work to home). Pass-by trips were calculated based on the methodology and studies documented in the ITE *Trip Generation Manual*, 11th Edition. The pass-by data from the ITE manual is included in Appendix F. Since the ITE *Trip Generation Manual* does not include pass-by trip rates for LUC 820 (Shopping Center (>150k)) for the weekday daily and AM peak hour time periods, no pass-by trip adjustments were made to the weekday daily and AM peak hour trip generation estimates which results in more conservative estimates.

Internal trips are made by people making multiple stops within a development without generating new trips onto the adjacent street system. The internal trip adjustments were based on the methodology established in the ITE *Trip Generation Handbook*, 3rd Edition, 2017. Since the ITE *Trip Generation Handbook* does not include a methodology to estimate daily internal trips, no internal trip adjustments were made to the weekday daily trip generation estimates which results in more conservative estimates.

The resulting net new weekday daily, AM peak hour, and PM peak hour vehicular trip generation estimates for Phases 1 to 3 and Full Buildout of the *RTC Master Plan* project are summarized in Table 5. Detailed trip generation estimates are included in Appendix G.

Table 5
Trip Generation Summary

	Scenario 1 (All Residential Option) Net New Trips Generated			Scenario 2 (Residential & Office Option) Net New Trips Generated		
Weekday Time Period	In	Out	Total	In	Out	Total
Phases 1 to 3						
Daily	968	969	1,937	2,050	2,051	4,101
AM Peak Hour	32	152	184	201	106	307
PM Peak Hour	76	2	78	44	152	196
Phases 4 to 5						
Daily	-397	-397	-794	-397	-397	-794
AM Peak Hour	-9	54	45	-11	53	42
PM Peak Hour	-35	-74	-109	-37	-77	-114
Full Buildout (Phases 1 to 5)						
Daily	571	572	1,143	1,653	1,654	3,307
AM Peak Hour	23	206	229	190	159	349
PM Peak Hour	41	-72	-31	7	75	82

As shown in Table 5, Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project is estimated to generate the highest number of net new weekday PM peak hour and daily trips. This is higher than Scenario 1 due to the addition of the 270,100-SF of office space on Lot 4 (Building 4IC) in comparison to Scenario 1, which includes primarily residential uses on Lot 4. It is also higher than conditions with Full Buildout of the MDP due to the proposed net reduction in retail square footage of approximately 55,000 SF associated with Phases 4 and 5.

In order to evaluate the highest potential impact for the proposed *RTC Master Plan* project, this traffic analysis evaluates traffic impacts associated with Phases 1 to 3 of Scenario 2 (Residential & Office Option).

It should be noted that although the project trip generation is greater during the AM peak hour than during the PM peak hour, this traffic analysis only evaluates traffic operations during the PM peak hour because background traffic in Redmond has historically been greatest during the PM peak hour. For example, based on a review of historical traffic counts within close proximity to the *RTC Master Plan* site, traffic volumes during the AM peak hour are approximately 40 percent lower than traffic volumes during the PM peak hour.

Transportation Concurrency

A concurrency application was submitted to the City of Redmond for the *RTC Master Plan* project and is included in Appendix H for reference. The concurrency application was based on the Master Plan scenario with the highest net new Mobility Unit (MU) demand, and shows that the proposed *RTC Master Plan* project would generate a net new MU demand of 2,036 mobility units with Phases 1 to 3 of Scenario 2 (Residential & Office Option). The mobility unit demand rates used for the proposed and existing uses were based on MU rates for the Downtown Urban Center.

Using this information, the City will determine whether enough MUs from the six-year program and the Transportation Facility Plan (TFP) can be supplied to meet travel demand from the development at the

time of opening, or within six years. If the MU supply is available to serve the MU demand from the development, the City will issue a certificate of concurrency. It is expected that the current MU supply will accommodate the additional MU demand created by the proposed *RTC Master Plan* project. Therefore, it is anticipated that a certificate of concurrency will be issued for the project.

Project Trip Distribution and Assignment

The distribution of project trips associated with Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project were estimated based on 2022 average weekday daily traffic (AWDT) volumes on streets surrounding the downtown area from the City of Redmond and is generally consistent with previously approved projects in the study area. The calculations for estimating trip distribution patterns are included in Appendix I.

The estimated *RTC Master Plan* project trip distribution is illustrated in Figure 4. The PM peak hour net new project trip assignment is shown in Figure 5 (Phases 1 to 3 of Scenario 2). The assignment of project trips was calculated by multiplying the distribution percentages of project traffic (shown in Figure 4) by the proposed trip generation estimates for each phase.

Future Traffic Operations

Future Traffic Volumes

To estimate the future 2030 and 2034 No Action PM peak hour traffic volumes, a 2 percent annual growth rate was applied to the 2025 existing traffic volumes.

Figures 6 and 8 illustrate the future 2030 and 2034 No Action PM peak hour traffic volumes, respectively. To determine the future With Project traffic volumes, the net new project-generated trips (Phases 1 to 3 of Scenario 2) which are shown in Figure 5 were added to the future No Action volumes. The resulting 2030 With Project (Phases 1 to 3 of Scenario 2) and 2034 With Project (Phases 1 to 3 of Scenario 2) PM peak hour traffic volumes at the study intersections are shown in Figures 7 and 9, respectively.

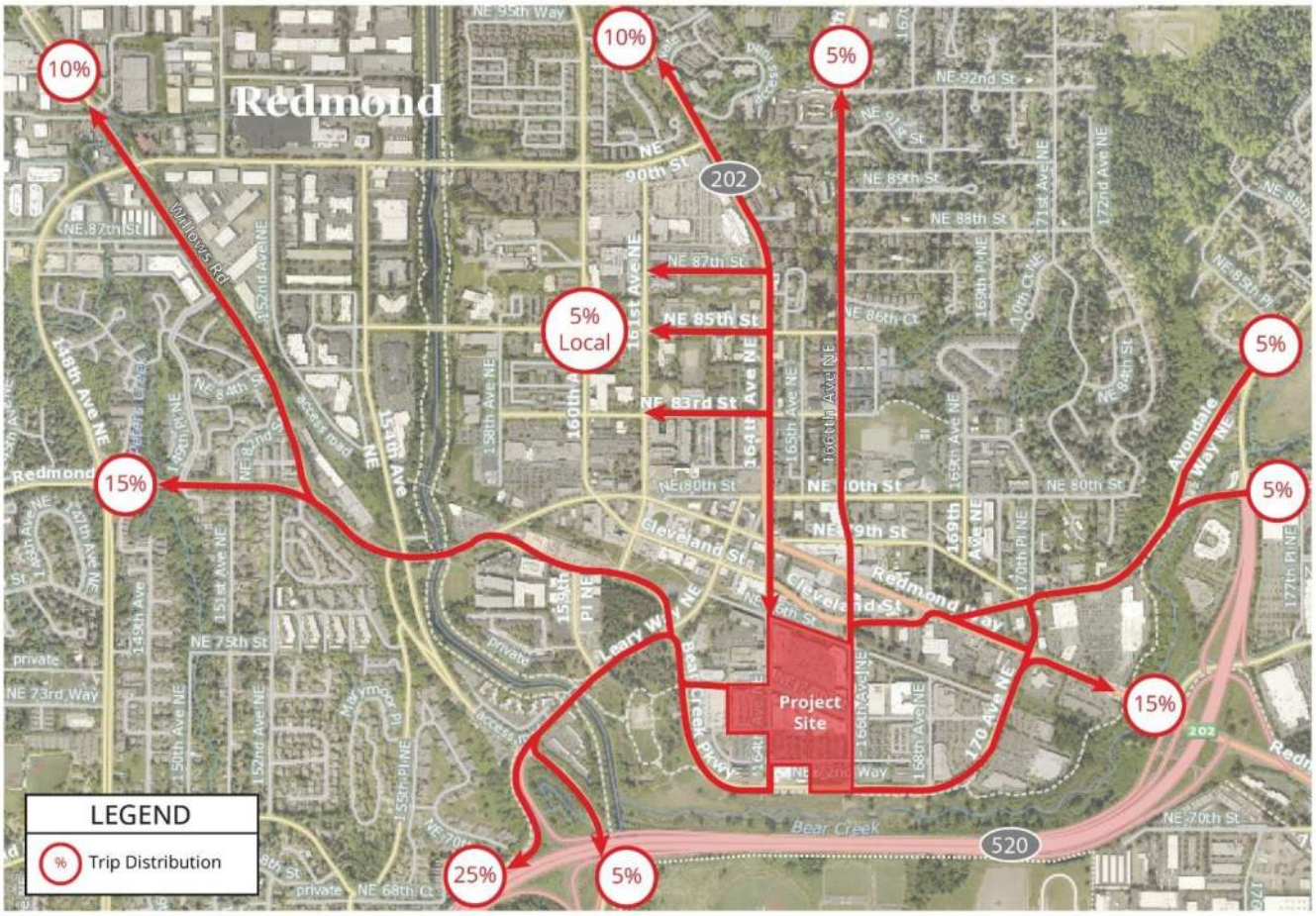


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Figure 4: PM Peak Hour Project Trip Distribution

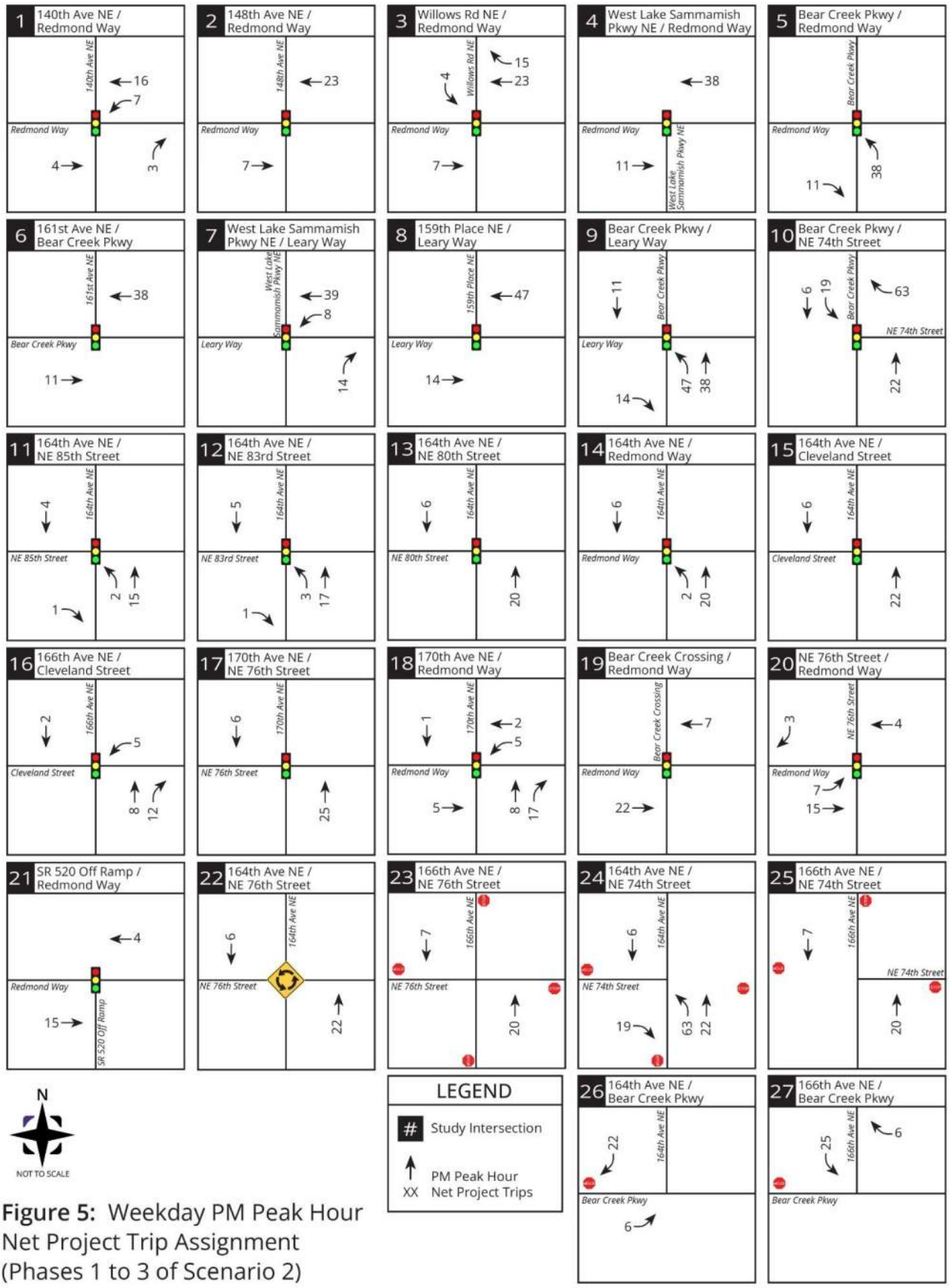


Figure 5: Weekday PM Peak Hour Net Project Trip Assignment (Phases 1 to 3 of Scenario 2)

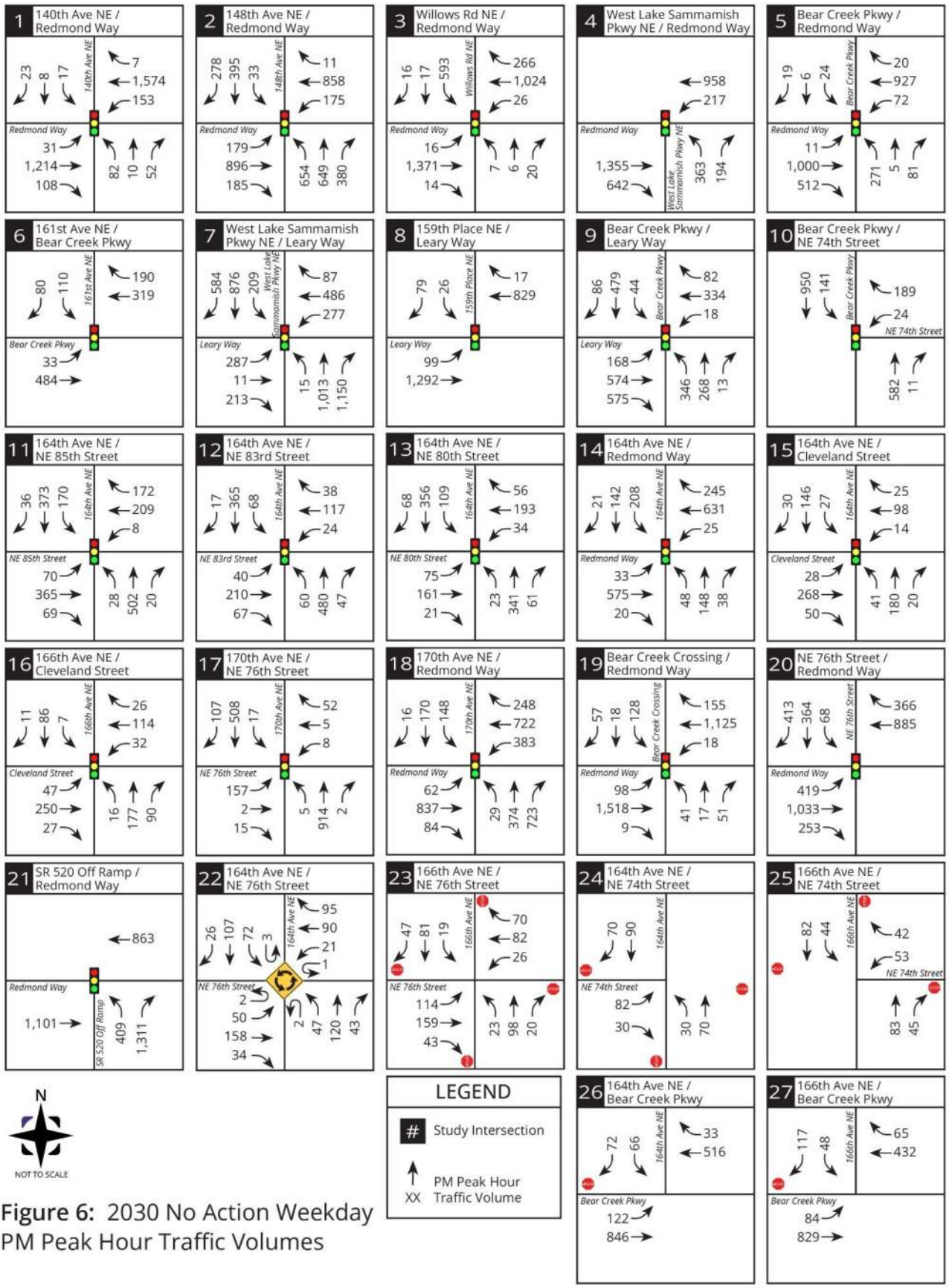


Figure 6: 2030 No Action Weekday PM Peak Hour Traffic Volumes

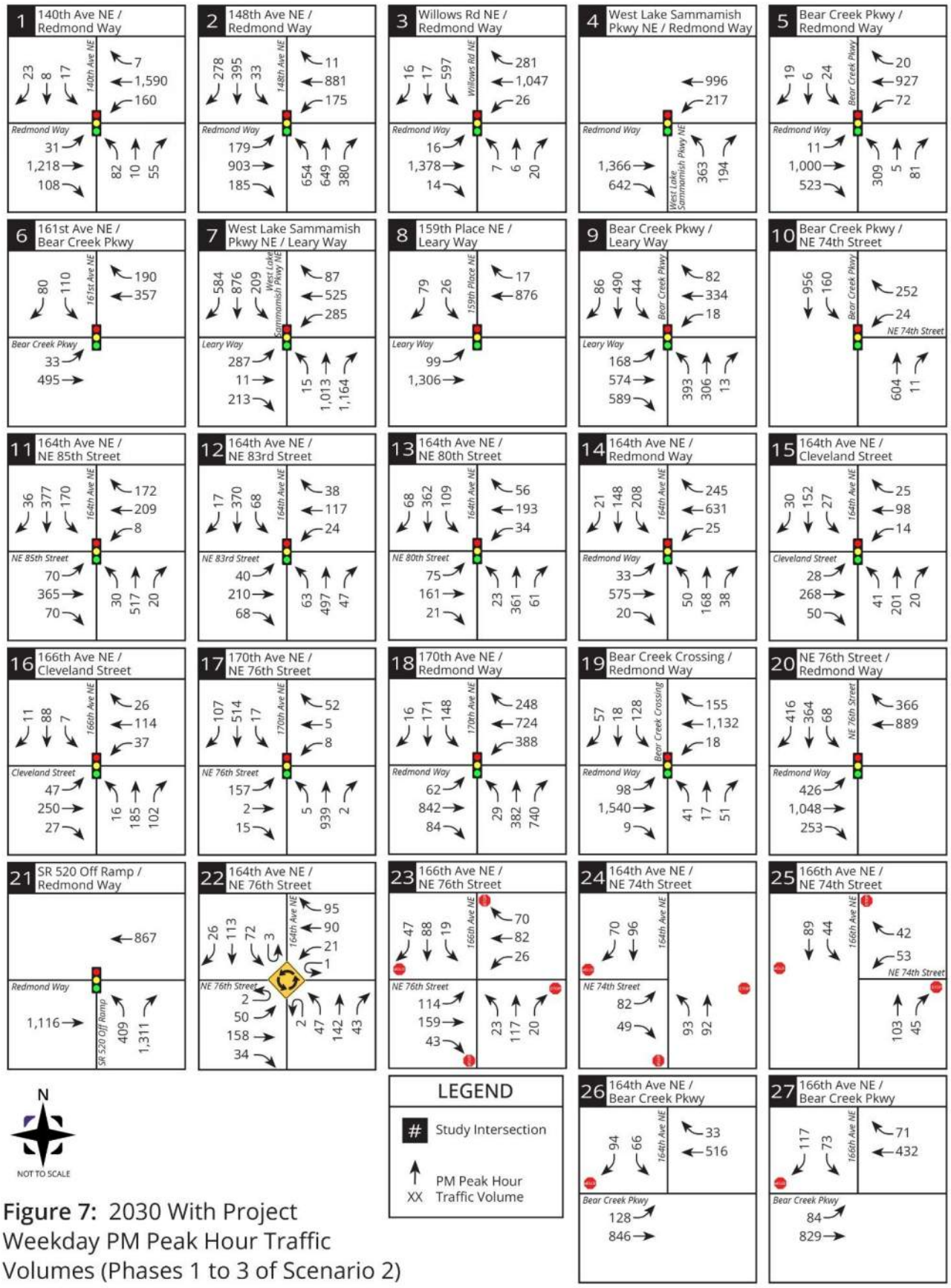


Figure 7: 2030 With Project Weekday PM Peak Hour Traffic Volumes (Phases 1 to 3 of Scenario 2)

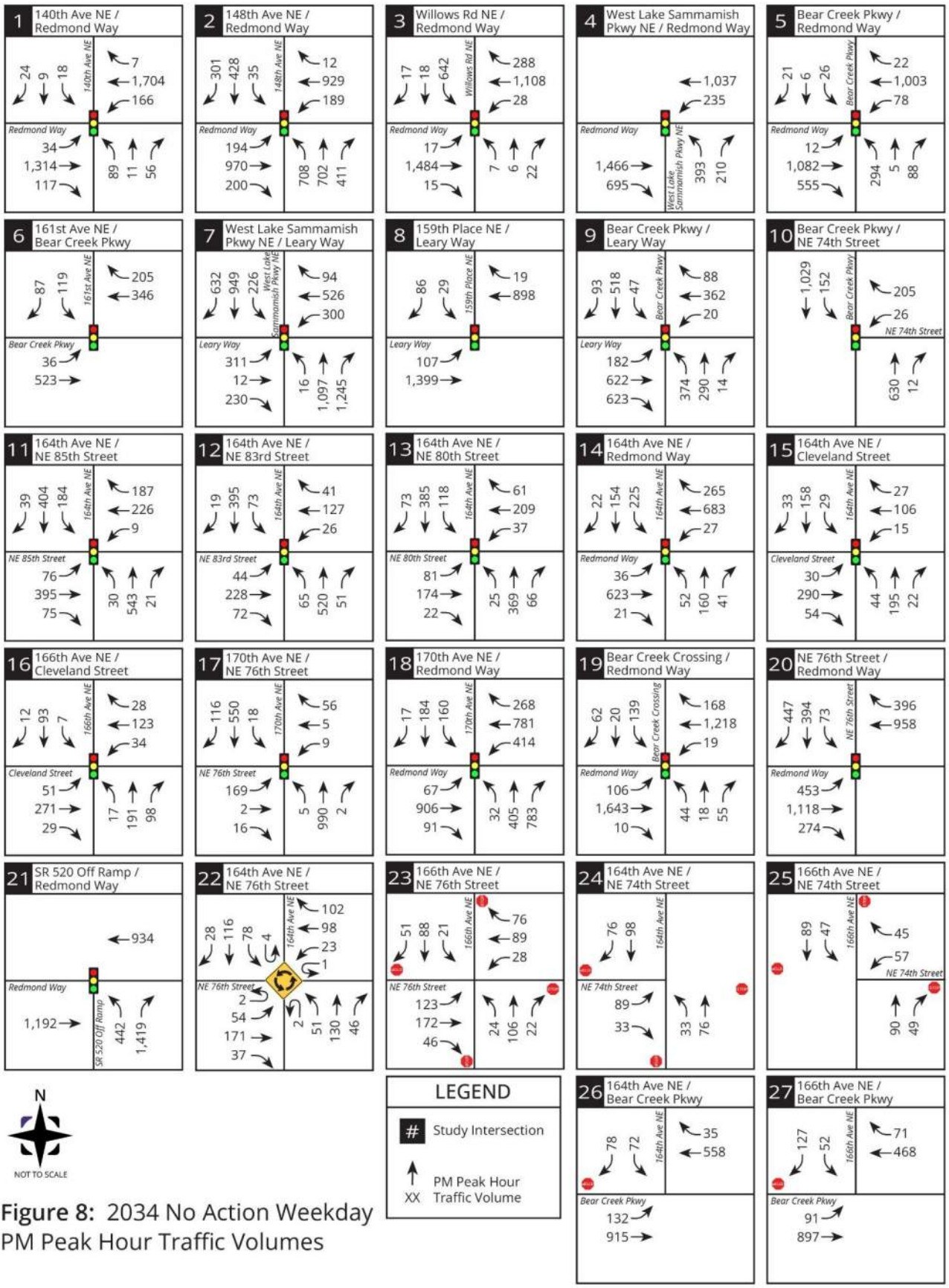


Figure 8: 2034 No Action Weekday PM Peak Hour Traffic Volumes

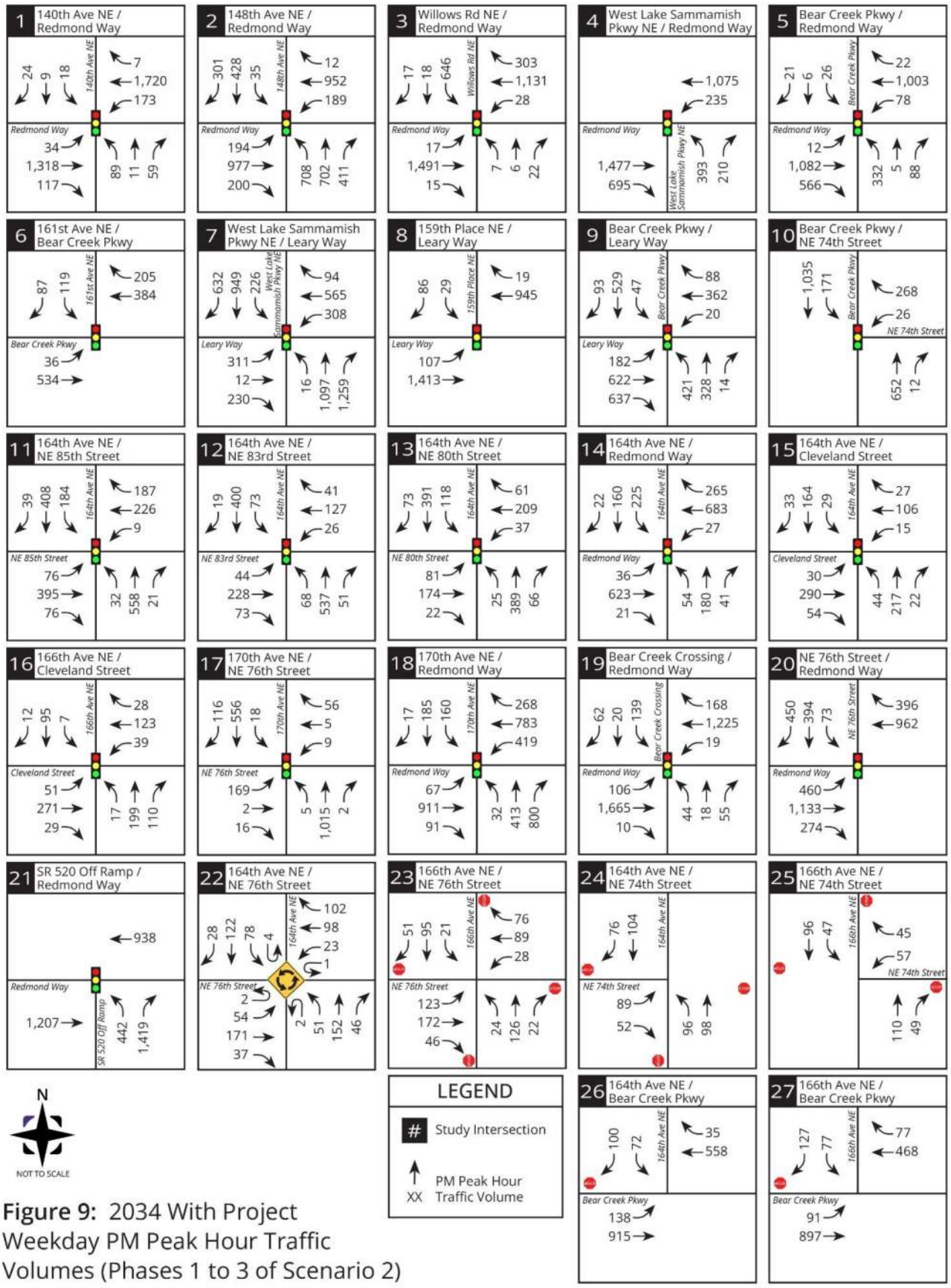


Figure 9: 2034 With Project Weekday PM Peak Hour Traffic Volumes (Phases 1 to 3 of Scenario 2)

Future Level of Service

A future Level of Service (LOS) analysis was conducted at the study intersections for weekday PM peak hour future 2030 and 2034 No Action conditions and for future 2030 and 2034 With Project conditions. Existing signal phasing and channelization at the study intersections were used in the future LOS analyses.

Additionally, splits were optimized at all intersections for the future 2030 and 2034 No Action conditions. The optimized signal timing splits were then used for the corresponding 2030 and 2034 With Project scenarios. The future weekday PM peak hour LOS results at the study intersections without and with the proposed *RTC Master Plan* project are summarized in Tables 6 and 7. The LOS worksheets are included in Appendix E.

Table 6
Future 2030 PM Peak Hour LOS Summary

Study Intersection	No Action LOS	No Action Delay (sec)	With Project Scenario 2 (Phases 1-3) LOS	With Project Scenario 2 (Phases 1-3) Delay (sec)
Signalized Intersections:				
1. 140th Ave NE/Redmond Way	B	19.1	B	19.5
2. 148th Ave NE/Redmond Way	D	53.4	D	52.8
3. Willows Rd NE/Redmond Way	D	40.0	D	40.0
4. West Lake Sammamish Pkwy NE/Redmond Way	B	13.6	B	13.5
5. Bear Creek Pkwy/Redmond Way	B	13.0	B	14.2
6. Bear Creek Pkwy/161st Ave NE	B	18.0	B	19.4
7. West Lake Sammamish Pkwy NE/Leary Way	E	59.0	E	59.3
8. 159th Pl NE/Leary Way	B	17.2	B	17.6
9. Bear Creek Pkwy/Leary Way	D	43.6	D	43.0
10. Bear Creek Pkwy/NE 74th St	B	12.2	B	12.6
11. 164th Ave NE/NE 85th St	C	31.1	C	31.6
12. 164th Ave NE/NE 83rd St	B	16.4	B	16.3
13. 164th Ave NE/NE 80th St	B	19.1	B	19.3
14. 164th Ave NE/Redmond Way	C	29.3	C	29.8
15. 164th Ave NE/Cleveland St	B	19.0	B	19.9
16. 166th Ave NE/Cleveland St	B	12.0	B	12.3
17. 170th Ave NE/NE 76th St	B	11.4	B	11.4
18. 170th Ave NE/Redmond Way	D	54.5	E	57.2
19. Bear Creek Crossing/Redmond Way	D	48.8	D	50.9
20. NE 76th St/Redmond Way	B	18.1	B	18.1
21. SR 520 Off-Ramp/Redmond Way	C	23.5	C	23.6
Roundabout Intersections:				
22. 164th Ave NE/NE 76th St	A	6.0	A	6.2
All-Way Stop-Controlled Intersections:				
23. 166th Ave NE/NE 76th St	B	11.1	B	11.3
24. 164th Ave NE/NE 74th St	A	8.2	A	8.9
25. 166th Ave NE/NE 74th St	A	8.0	A	8.2
Two-Way Stop-Controlled Intersections:				
26. 164th Ave NE/Bear Creek Pkwy				
Eastbound Left-Turn	A	9.2	A	9.2
Southbound Left-Turn	D	30.4	D	30.9
Southbound Right-Turn	B	13.3	B	13.7
27. 166th Ave NE/Bear Creek Pkwy				
Eastbound Left-Turn	A	8.9	A	8.9
Southbound Left-Turn	C	23.0	D	25.7
Southbound Right-Turn	B	13.4	B	13.4

Table 7
Future 2034 PM Peak Hour LOS Summary

Study Intersection	No Action LOS	No Action Delay (sec)	With Project Scenario 2 (Phases 1-3) LOS	With Project Scenario 2 (Phases 1-3) Delay (sec)
Signalized Intersections:				
1. 140th Ave NE/Redmond Way	C	21.8	C	22.3
2. 148th Ave NE/Redmond Way	E	61.2	E	62.4
3. Willows Rd NE/Redmond Way	D	46.3	D	46.7
4. West Lake Sammamish Pkwy NE/Redmond Way	B	13.5	B	13.4
5. Bear Creek Pkwy/Redmond Way	B	13.5	B	14.6
6. Bear Creek Pkwy/161st Ave NE	B	18.9	B	19.9
7. West Lake Sammamish Pkwy NE/Leary Way	E	67.9	E	68.3
8. 159th Pl NE/Leary Way	C	21.9	C	22.7
9. Bear Creek Pkwy/Leary Way	D	49.4	D	48.3
10. Bear Creek Pkwy/NE 74th St	B	13.6	B	14.3
11. 164th Ave NE/NE 85th St	C	34.4	C	35.0
12. 164th Ave NE/NE 83rd St	B	16.9	B	16.8
13. 164th Ave NE/NE 80th St	B	19.9	C	20.1
14. 164th Ave NE/Redmond Way	D	46.6	D	47.2
15. 164th Ave NE/Cleveland St	B	19.5	C	20.4
16. 166th Ave NE/Cleveland St	B	12.2	B	12.5
17. 170th Ave NE/NE 76th St	B	12.1	B	12.2
18. 170th Ave NE/Redmond Way	E	64.3	E	67.4
19. Bear Creek Crossing/Redmond Way	E	65.9	E	69.1
20. NE 76th St/Redmond Way	C	22.9	C	22.9
21. SR 520 Off-Ramp/Redmond Way	C	29.5	C	29.7
Roundabout Intersections:				
22. 164th Ave NE/NE 76th St	A	6.4	A	6.6
All-Way Stop-Controlled Intersections:				
23. 166th Ave NE/NE 76th St	B	11.8	B	12.2
24. 164th Ave NE/NE 74th St	A	8.4	A	9.0
25. 166th Ave NE/NE 74th St	A	8.2	A	8.3
Two-Way Stop-Controlled Intersections:				
26. 164th Ave NE/Bear Creek Pkwy				
Eastbound Left-Turn	A	9.4	A	9.5
Southbound Left-Turn	E	36.5	E	37.2
Southbound Right-Turn	B	14.0	B	14.5
27. 166th Ave NE/Bear Creek Pkwy				
Eastbound Left-Turn	A	9.1	A	9.1
Southbound Left-Turn	D	25.9	D	29.5
Southbound Right-Turn	B	14.2	B	14.2

The City of Redmond uses the following guidelines in determining whether mitigation is required at specific intersections:

- If the intersection will operate at LOS D or better in the forecasted year with the proposed project, no mitigation is required.
- If the intersection will operate at LOS E/F in the forecasted year with the proposed project, and the addition of the project traffic decreases the LOS, mitigation may be required to alleviate project impacts.

As shown in Table 6, all study intersections are expected to operate at LOS D or better in 2030 without or with the project (Phases 1 to 3 of Scenario 2) during the weekday PM peak hour except for intersections 7 and 18. A discussion of project impacts at these intersections is included below.

7. West Lake Sammamish Pkwy / Leary Way (LOS E with or without project) – The proposed project is anticipated to add 61 net new PM peak hour trips to the intersection with Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project (1.2% of 5,269 total entering vehicular traffic at the intersection). Given the relatively low project impact (61 trips, + 0.3 seconds of delay, and 1.2% of total traffic), no project mitigation is proposed at this intersection.

18. 170th Ave NE / Redmond Way (LOS E with project) – The WSDOT LOS standard at this intersection is LOS E mitigated. Therefore, no mitigation is proposed.

As shown in Table 7, all study intersections are expected to operate at LOS D or better in 2034 without or with the project (Phases 1 to 3 of Scenario 2) during the weekday PM peak hour except for intersections 2, 7, 18, 19, and 26. A discussion of project impacts at these intersections is included below.

2. 148th Ave NE / Redmond Way (LOS E with or without project) – The proposed project is anticipated to add 30 net new PM peak hour trips to the intersection with Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project (0.6% of 5,109 total entering vehicular traffic at the intersection). Given the relatively low project impact (30 trips, + 1.2 seconds of delay, and 0.6% of total traffic), no project mitigation is proposed at this intersection.

7. West Lake Sammamish Pkwy / Leary Way (LOS E with or without project) – The proposed project is anticipated to add 61 net new PM peak hour trips to the intersection with Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project (1.1% of 5,699 total entering vehicular traffic at the intersection). Given the relatively low project impact (61 trips, + 0.4 seconds of delay, and 1.1% of total traffic), no project mitigation is proposed at this intersection.

18. 170th Ave NE / Redmond Way (LOS E with or without project) – The WSDOT LOS standard at this intersection is LOS E mitigated. Therefore, no mitigation is proposed.

19. Bear Creek Crossing / Redmond Way (LOS E with or without project) – The WSDOT LOS standard at this intersection is LOS E mitigated. Therefore, no mitigation is proposed.

26. 164th Ave NE / Bear Creek Parkway (Southbound Left-Turn is LOS E with or without project) – The proposed project is anticipated to add 28 net new PM peak hour trips to the intersection with Phases 1 to 3 of Scenario 2 (Residential & Office Option) of the proposed *RTC Master Plan* project (1.5% of 1,818 total entering vehicular traffic at the intersection). Given the relatively low project impact (28 trips, + 0.7 seconds of delay, and 1.5% of total traffic), no project mitigation is proposed at this intersection.

MITIGATION

The following measures are identified to mitigate the transportation impacts of the proposed *RTC Master Plan* project.

Frontage/Access/Multimodal Improvements. The proposed *RTC Master Plan* project would construct the following frontage/access/multimodal improvements:

- Phase 2
  - Re-channelization of 164th Ave NE and 166th Ave NE (between NE 76th Street and Bear Creek Parkway) to accommodate a new bike lane in one direction and shared lane markings in the other direction.
  - Re-channelization of NE 74th Street (between Bear Creek Parkway and 164th Ave NE) to accommodate a new bike lane in one direction and shared lane markings in the other direction.
  - Reconstruct existing parking lot drive aisle along the south side of Phase 2 to create a new NE 72nd Way private roadway (between 164th Ave NE and 166th Ave NE) including a raised mid-block pedestrian crossing.
  - Reconstruct existing parking lot drive aisle along the north side of Phase 2 to create a new NE 73rd Way private roadway (between 164th Ave NE and 166th Ave NE) including a raised mid-block pedestrian crossing.
  - Construct a publicly accessible linear plaza connecting NE 73rd Way with NE 72nd Way.
- Phase 3
  - Add on-street parking along a portion of NE 72nd Way.
  - Construct a new enhanced mid-block crossing on Bear Creek Parkway (mid-way between 164th Ave NE and 166th Ave NE).
  - Construct a publicly accessible linear plaza connecting NE 72nd Way with Bear Creek Parkway.
- Phases 4 and 5
  - Pedestrian/plaza improvements on NE 74th Street between 164th Ave NE and 166th Ave NE (pedestrian only street).
  - Intersection improvements (pedestrian improvements and potential raised intersection) at the following intersections:
    - 164th Ave NE / NE 74th Street
    - 166th Ave NE / NE 74th Street
    - 166th Ave NE / NE 76th Street

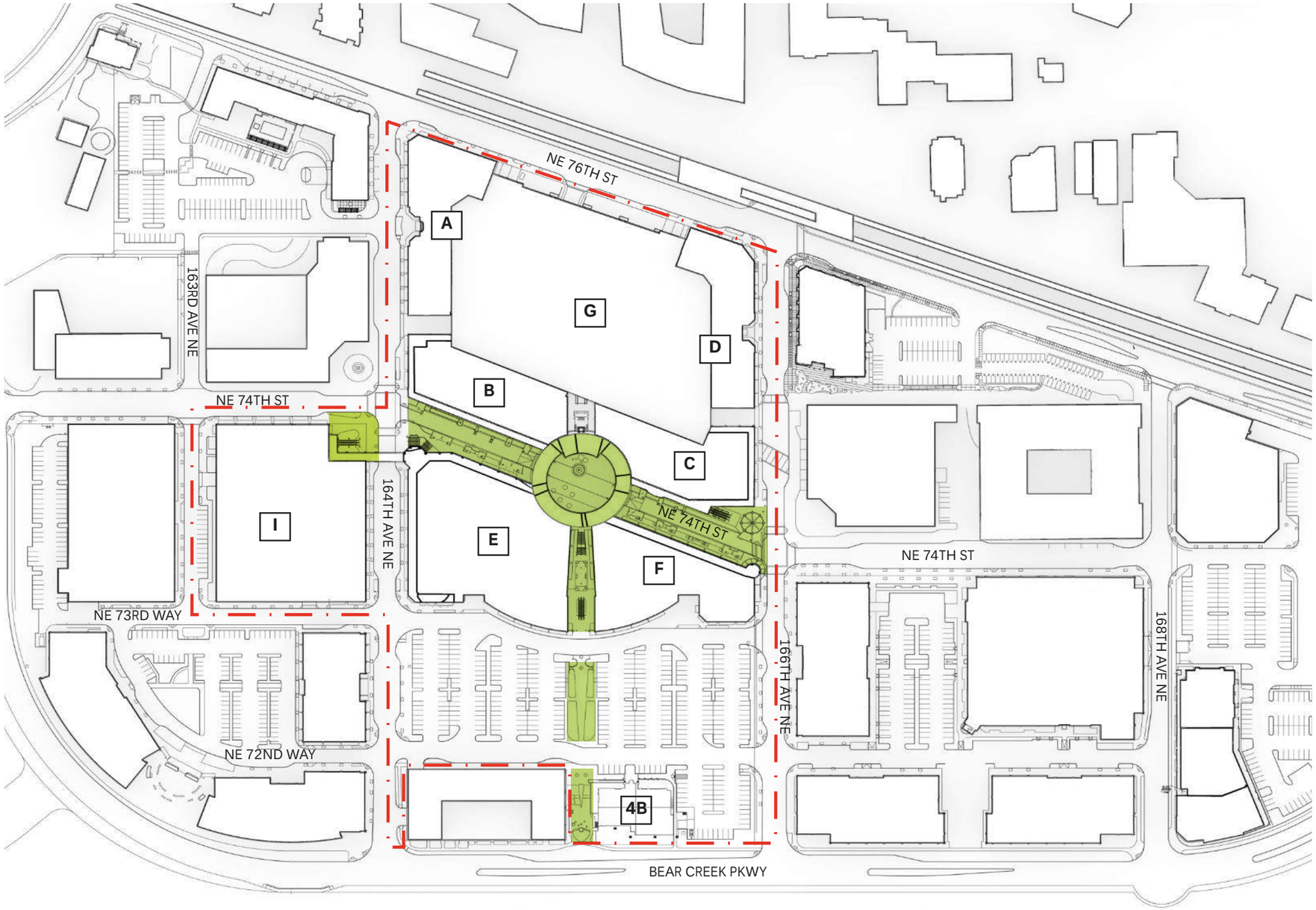
Off-Site Improvements. Based on the results of the analysis shown in this report, no project-specific off-site transportation mitigation is proposed for concurrency or SEPA purposes.

Transportation Impact Fees. Long-term traffic impacts in the City of Redmond are mitigated by the projects included in the City's Transportation Facilities Plan (TFP). The TFP projects are funded through the payment of City of Redmond transportation impact fees. Based on this process, a fee is assessed upon a development to pay for a proportionate share of the cost of public facilities needed to serve new growth and development. The final impact fee calculation will be based on the rates and project size in effect at the time of building permit issuance for each building within the Master Plan.

Appendix A

Site Plan

EXISTING PROJECT DATA SUMMARY



EXISTING MASTERPLAN
NTS

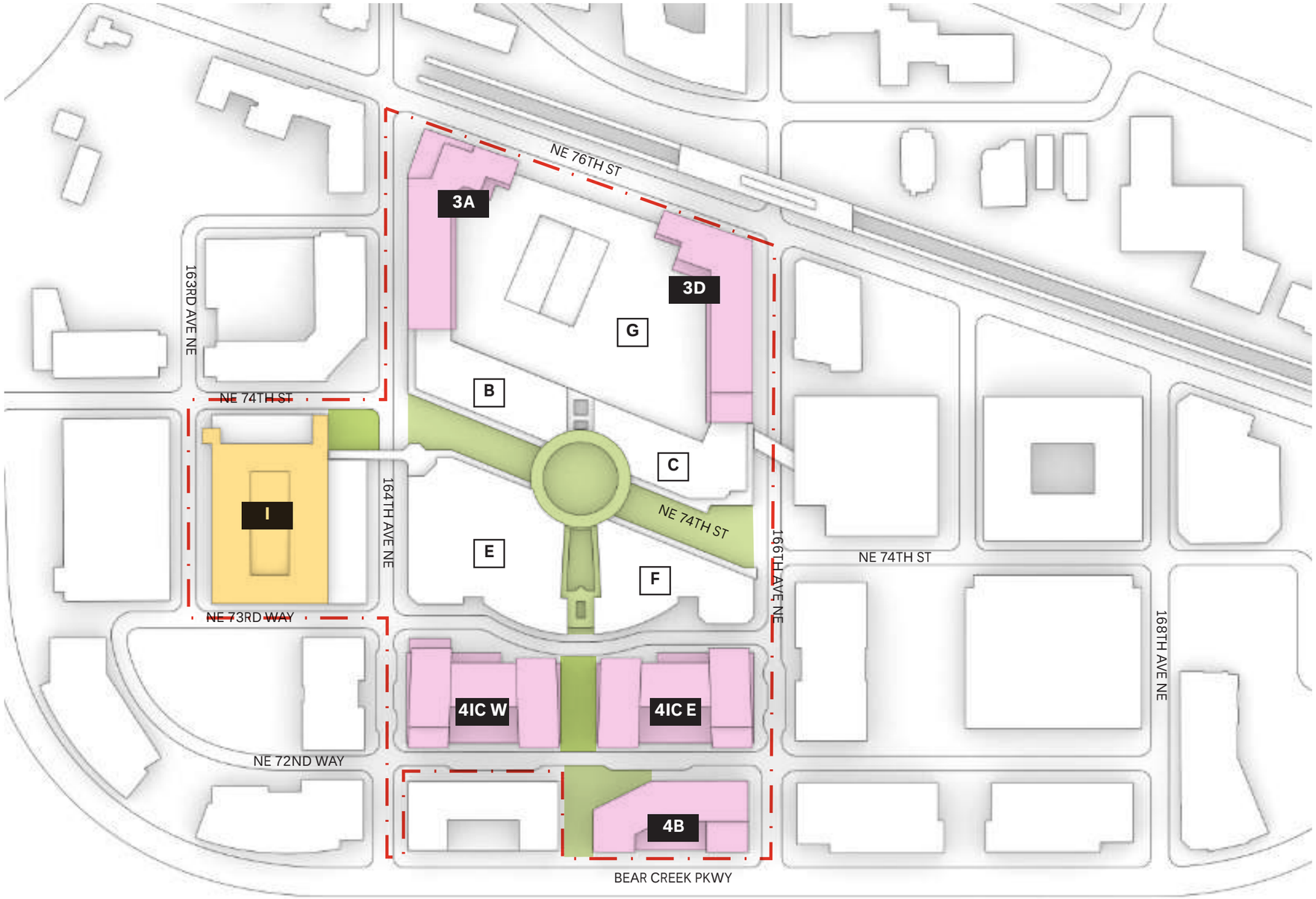
LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- EXISTING GROUND LEVEL PUBLIC OPEN SPACE

BLDG	Ground Level		Upper Level	Total
	Pedestrian-Oriented Uses	Commercial Uses	Commercial Uses	
A	11,381 SF	12,070 SF	24,348 SF	47,799 SF
B	25,095 SF	0 SF	22,928 SF	48,023 SF
C	23,885 SF	0 SF	22,243 SF	46,128 SF
D	14,763 SF	5,501 SF	21,023 SF	41,287 SF
E	48,635 SF	11,237 SF	54,844 SF	114,716 SF
F	23,532 SF	7,848 SF	29,464 SF	60,844 SF
I	5,881 SF	20,577 SF	—	26,458 SF
4B	8,738 SF	0 SF	—	8,738 SF

Total = 393,993 SF

PROPOSED MASTERPLAN - ALL RESIDENTIAL OPTION



PROPOSED MASTERPLAN
NTS

LEGEND

- PROPOSED MPD BOUNDARY

  SITE AREA: 934,915 SQUARE FEET OR 21,4627 ACRES

3A NEW BUILDING 3A

- 7 STORY MIXED-USE RESIDENTIAL

3D NEW BUILDING 3D

- 7 STORY MIXED-USE RESIDENTIAL

4IC NEW BUILDINGS 4IC

- TWO NEW 12 STORY MIXED-USE RESIDENTIAL

  OR

- (1) 12 STORY MIXED-USE RESIDENTIAL AND (1) 12 STORY MIXED-USE OFFICE

4B NEW BUILDING 4B

- 7 STORY RESIDENTIAL

I EXISTING I GARAGE ADDITION

- 2 STORY ADDITION TO EXISTING 2 STORY PARKING GARAGE

74TH STREET

- FUTURE STREET AND PLAZA IMPROVEMENTS

NEW BUILDINGS ADDED OR MODIFIED

EXISTING BUILDINGS

NEW/ MODIFIED GROUND LEVEL PUBLIC OPEN SPACE

Exhibit E

BUILDING DATA MATRIX AND UNIT TYPE

DEVELOPMENT AREA NOTES:

- Square Footage and Unit Count numbers in this table below are approximate and based on the conceptual level of design. Maximum “Not-To-Exceed” density shall apply to the metrics used in the TIA for the project. TIA numbers took the above approximate figures, grossed them up by 5-10%, and then rounded them to create a conservative estimate of the total development impact and allow for appropriate flexibility as design is completed.
- Pedestrian Oriented Use Square footage requirements are outlined in the Development Agreement.
- New Mixed-use Residential buildings include a mix of Pedestrian Generating Uses as depicted on the plans on page 15 of the MPD, and in the appendix.
- Unit Type and Counts are estimates only, and subject to change at SPE, subject to EAAH requirements and the maximum density thresholds established by this MPD and the TIA.

PHASE	BLDG	COMMERCIAL RETAIL	OFFICE		RESIDENTIAL			AMENITY	SERVICES	CIRC	TERRACE	TOTAL BLDG AREA	PARKING		
		AREA	LOBBY AREA	OFFICE AREA	UNITS	AREA	LEASING AREA	AREA	AREA	AREA	AREA	LESS PARKING AND TERRACE	STALLS	AREA	RESI / OFFICE RATIO
PHASE 01	I GARAGE	-	-	-	-	-	-	-	-	1,440	-	0	284	107,060	-
PHASE 02 ALL RESIDENTIAL OPTION	4IC - RESI (WEST)	11,820	-	-	252	201,350	2,570	11,020	21,720	44,020	12,060	292,500	192	86,320	0.74 / UNIT
	4IC - RESI (EAST)	11,810	-	-	252	201,350	2,570	21,590	21,780	44,020	12,060	303,050	192	86,300	0.74 / UNIT
PHASE 02 RESIDENTIAL AND OFFICE OPTION	4IC - OFFICE (WEST)	10,530	4,410	245,530	-	-	-	6,970	28,900	24,440	15,240	320,780	255	107,110	1.04 / 1,000 SF
	4IC - RESI (EAST)	11,810	-	-	252	201,350	2,570	21,590	21,780	44,020	12,060	303,050	192	86,300	0.74 / UNIT
PHASE 03	4B - RESI	2,690	-	-	136	110,570	1,870	9,070	7,620	18,820	9,820	150,640	102	48,330	0.75 / UNIT
PHASE 04	3A - RESI	16,070	-	-	148	119,830	1,530	7,340	9,360	21,340	6,860	175,470	110	28,090	0.74 / UNIT
PHASE 05	3D - RESI	14,800	-	-	140	113,300	1,670	7,600	7,330	18,980	7,670	163,680	104	25,600	0.74 / UNIT
TOTAL RESIDENTIAL OPTION		57,190	-	-	928	746,400	10,210	56,620	67,810	148,620	48,470	1,072,930	984	381,700	
TOTAL RESIDENTIAL AND OFFICE OPTION		55,900	4,410	245,530	676	545,050	7,640	52,570	74,990	129,040	51,650	1,101,210	1,047	402,490	

UNIT TYPE AND COUNT | ALL RESIDENTIAL OPTION

UNIT TYPE	4IC All RESI		4B		3A		3D	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
STUDIO / OPEN 1	174	34.5	46	33.8%	48	32.4%	47	33.6%
1 BED / 1 BED+	228	45.2	62	45.6%	68	45.9%	65	46.4%
2 BEDS / 2 BEDS+	72	14.3	19	14.0%	24	16.2%	20	14.3%
3 BEDS	30	6.0	9	6.6%	8	5.4%	8	5.7%
TOTAL	504	100%	136	100%	148	100%	140	100%

UNIT TYPE AND COUNT | RESIDENTIAL AND OFFICE OPTION

UNIT TYPE	4IC RESI+OFFICE		4B		3A		3D	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
STUDIO / OPEN 1	87	34.5	46	33.8%	48	32.4%	47	33.6%
1 BED / 1 BED+	114	45.2	62	45.6%	68	45.9%	65	46.4%
2 BEDS / 2 BEDS+	36	14.3%	19	14.0%	24	16.2%	20	14.3%
3 BEDS	15	6.0	9	6.6%	8	5.4%	8	5.7%
TOTAL	252	100%	136	100%	148	100%	140	100%

PROPOSED GROUND LEVEL

PROPOSED GROUND LEVEL - ALL RESIDENTIAL SCHEME

0' 100' 200'

PROPOSED GROUND LEVEL - RESIDENTIAL AND OFFICE SCHEME

0' 100' 200'

LEGEND

- PROJECT BOUNDARY
- # EXISTING BUILDING
- # PROPOSED NEW OR MODIFIED EXISTING BUILDING
- PARKING ENTRY
- LOADING ENTRY
- PEDESTRIAN ENTRY
- COMMERCIAL RETAIL
- COMMON RESI/OFFICE AMENITY
- RESIDENTIAL
- LEASING / MAIL
- CIRCULATION
- PARKING
- SERVICE
- OFFICE

Appendix B

Building Area and Unit Count Assumptions by Phase

Exhibit E

RTC Master Plan
Land Use Assumptions for Traffic Analysis

Existing Land Uses to be Removed

Land Use	Existing	PHASE 1 DEMO	PHASE 2 DEMO	PHASE 3 DEMO	PHASE 4 DEMO	PHASE 5 DEMO	TOTAL EXISTING REMAINING
Retail - GLA	393,993	0	0	-8,738	-47,799	-41,287	**296,169**

Proposed Land Uses - Scenario 1 (All Residential Option)

	Actual Estimates						Rounded for Master Plan & TIA					
Land Use	**PHASE 1 [1]**	**PHASE 2**	**PHASE 3**	**PHASE 4**	**PHASE 5**	**TOTAL PROPOSED**	**PHASE 1 [1]**	**PHASE 2**	**PHASE 3**	**PHASE 4**	**PHASE 5**	**TOTAL PROPOSED**
Residential - DU												
Buildings 4IC West - Mixed-Use Residential		252				252	0	275	0	0	0	275
Buildings 4IC East - Mixed-Use Residential		252				252	0	275	0	0	0	275
Building 4B - Mixed-Use Residential			136			136	0	0	150	0	0	150
Building 3A - Mixed-Use Residential				148		148	0	0	0	165	0	165
Building 3D - Mixed-Use Residential					140	140	0	0	0	0	155	155
	0	504	136	148	140	**928**	0	550	150	165	155	**1,020**
Retail - GLA												
Buildings 4IC West - Mixed-Use Residential		11,820				11,820	0	13,000	0	0	0	13,000
Buildings 4IC East - Mixed-Use Residential		11,810				11,810	0	13,000	0	0	0	13,000
Building 4B - Mixed-Use Residential			2,690			2,690	0	0	3,000	0	0	3,000
Building 3A - Mixed-Use Residential				16,070		16,070	0	0	0	17,700	0	17,700
Building 3D - Mixed-Use Residential					14,800	14,800	0	0	0	0	16,300	16,300
	0	23,630	2,690	16,070	14,800	**57,190**	0	26,000	3,000	17,700	16,300	**63,000**

Sources:
1. Proposed Master Plan building areas based on Master Plan provided by GGLO on 3/12/25.
2. Existing uses to be demo'd provided by Patrick Woodruff (Hines) 9/14/23.

Notes:
[1] Phase 1 is parking addition to Building I only, no other new land uses are proposed.

Gross Floor Area (GFA). The area included within the surrounding exterior walls of a building or portion thereof, exclusive of vent shafts, elevator shafts, stairwells, courts, second-story atriums, and lobbies.

Effective on: 4/16/2011

Gross Leasable Area (GLA). The total floor area that is designated for a tenant's occupancy, exclusive of common areas shared with other tenants, such as utility rooms, stairwells, and malls.

(Ord. 2803)

Effective on: 10/17/2015

Cumulative Land Use Summary - Scenario 1 (All Residential Option)

	PHASE 1 [1]	PHASES 1-2	PHASES 1-3	PHASES 1-4	PHASES 1-5	TOTAL
Proposed:						
Residential - DU	0	550	700	865	1,020	1,020
Retail - GLA	0	26,000	29,000	46,700	63,000	63,000
Existing:						
Retail Demo'd - GLA	0	0	-8,738	-56,537	-97,824	-97,824
Total With Project:						
Residential - DU	0	550	700	865	1,020	1,020
Retail - GLA	0	26,000	20,262	-9,837	-34,824	-34,824

RETAIL AREA CALCULATIONS

Pre-Project (EXISTING CREDIT)	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	Post-Project	
0	0	26,000	3,000			29,000	Retail (Added with project)
393,993	0	0	-8,738			385,255	Retail (to remain with project)
EXISTING USE CREDIT **393,993**	0	26,000	-5,738			**414,255**	**Phases 1-3 Total Retail Area**
0	0	26,000	3,000	17,700	16,300	63,000	Retail (Added with project)
393,993	0	0	-8,738	-47,799	-41,287	296,169	Retail (to remain with project)
EXISTING USE CREDIT **393,993**	0	26,000	-5,738	-30,099	-24,987	**359,169**	**Full Buildout Total Retail Area**

*yellow highlight = land use areas used for trip generation calculations

Exhibit E

RTC Master Plan
Land Use Assumptions for Traffic Analysis

Existing Land Uses to be Removed

Land Use	Existing	PHASE 1 DEMO	PHASE 2 DEMO	PHASE 3 DEMO	PHASE 4 DEMO	PHASE 5 DEMO	TOTAL EXISTING REMAINING
Retail - GLA	393,993	0	0	-8,738	-47,799	-41,287	**296,169**

Proposed Land Uses - Scenario 2 (Residential and Office Option)

	Actual Estimates						Rounded for Master Plan & TIA					
Land Use	**PHASE 1 [1]**	**PHASE 2**	**PHASE 3**	**PHASE 4**	**PHASE 5**	**TOTAL PROPOSED**	**PHASE 1 [1]**	**PHASE 2**	**PHASE 3**	**PHASE 4**	**PHASE 5**	**TOTAL PROPOSED**
Residential - DU												
Buildings 4IC East - Mixed-Use Residential		252				252	0	275	0	0	0	275
Building 4B - Mixed-Use Residential			136			136	0	0	150	0	0	150
Building 3A - Mixed-Use Residential				148		148	0	0	0	165	0	165
Building 3D - Mixed-Use Residential					140	140	0	0	0	0	155	155
	0	252	136	148	140	**676**	0	275	150	165	155	**745**
Retail - GLA												
Buildings 4IC East - Mixed-Use Residential		11,810				11,810	0	13,000	0	0	0	13,000
Buildings 4IC West - Mixed-Use Office		10,530				10,530	0	11,600	0	0	0	11,600
Building 4B - Mixed-Use Residential			2,690			2,690	0	0	3,000	0	0	3,000
Building 3A - Mixed-Use Residential				16,070		16,070	0	0	0	17,700	0	17,700
Building 3D - Mixed-Use Residential					14,800	14,800	0	0	0	0	16,300	16,300
	0	22,340	2,690	16,070	14,800	**55,900**	0	24,600	3,000	17,700	16,300	**61,600**
Office - GFA												
						0	0	0	0	0	0	**0**
Buildings 4IC West - Mixed-Use Office		245,530				**245,530**	0	270,100	0	0	0	**270,100**
	0	245,530	0	0	0	**245,530**	0	270,100	0	0	0	**270,100**

Sources:
1. Proposed Master Plan building areas based on Master Plan provided by GGLO on 3/12/25.
2. Existing uses to be demo'd provided by Patrick Woodruff (Hines) 9/14/23.

Notes:
[1] Phase 1 is parking addition to Building I only, no other new land uses are proposed.

Gross Floor Area (GFA). The area included within the surrounding exterior walls of a building or portion thereof, exclusive of vent shafts, elevator shafts, stairwells, courts, second-story atriums, and lobbies.

Effective on: 4/16/2011

Gross Leasable Area (GLA). The total floor area that is designated for a tenant's occupancy, exclusive of common areas shared with other tenants, such as utility rooms, stairwells, and malls.

(Ord. 2803)

Effective on: 10/17/2015

Cumulative Land Use Summary - Scenario 2 (Residential and Office Option)

	PHASE 1 [1]	PHASES 1-2	PHASES 1-3	PHASES 1-4	PHASES 1-5	TOTAL
Proposed:						
Residential - DU	0	275	425	590	745	745
Retail - GLA	0	24,600	27,600	45,300	61,600	61,600
Office - GFA	0	270,100	270,100	270,100	270,100	270,100
Existing:						
Retail Demo'd - GLA	0	0	-8,738	-56,537	-97,824	-97,824
Total With Project:						
Residential (proposed) - DU	0	275	425	590	745	745
Retail (proposed less demo'd) - GLA	0	24,600	18,862	-11,237	-36,224	-36,224
Office (proposed) - GFA	0	270,100	270,100	270,100	270,100	270,100

RETAIL AREA CALCULATIONS

Pre-Project (EXISTING CREDIT)	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	Post-Project	
0	0	24,600	3,000			27,600	Retail (Added with project)
393,993	0	0	-8,738			385,255	Retail (to remain with project)
EXISTING USE CREDIT 393,993	0	24,600	-5,738			**412,855**	**Phases 1-3 Total Retail Area**
0	0	24,600	3,000	17,700	16,300	61,600	Retail (Added with project)
393,993	0	0	-8,738	-47,799	-41,287	296,169	Retail (to remain with project)
EXISTING USE CREDIT 393,993	0	24,600	-5,738	-30,099	-24,987	**357,769**	**Full Buildout Total Retail Area**

*yellow highlight = land use areas used for trip generation calculations

Appendix C

WSDOT Crash Data

Exhibit E

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO
City Street	King	Redmond	140TH AVE NE		REDMOND WAY						EE23393	11/26/2023	12:04	Suspected Minor Injury	2	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	South	East	West	East
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						ED58944	05/10/2023	12:26	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	West	South	West
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						ED42928	03/16/2023	08:46	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	Vehicle Stopped
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						ED27450	01/01/2023	01:03	Suspected Minor Injury	2	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North
City Street	King	Redmond	148TH AVE NE		REDMOND WAY						EB08655	02/15/2021	12:53	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						EC01518	12/09/2021	12:12	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign	South	West	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	148TH AVE NE	7900	REDMOND WAY						ED84487	07/14/2023	17:31	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	East
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						ED61458	05/17/2023	11:05	No Apparent Injury	0	0	3	0	0	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign	West	South	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						ED47897	04/02/2023	21:44	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West
City Street	King	Redmond	148TH AVE NE		REDMOND WAY						ED03128	10/25/2022	20:53	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	West	South	North	South
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						EE31490	12/16/2023	17:50	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- both moving -- rear end	Making Right Turn	Making Right Turn	South	East	South	East
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						ED16514	12/20/2022	11:28	Possible Injury	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped at Signal or Stop Sign	South	North	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	148TH AVE NE	7885	REDMOND WAY						EE33980	12/21/2022	17:32	No Apparent Injury	0	0	2	0	0	From same direction - all others	Backing	Stopped at Signal or Stop Sign	Vehicle Backing	Vehicle Backing	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	148TH AVE NE		REDMOND WAY						EE35404	12/28/2023	14:50	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn	South	East	South	East
City Street	King	Redmond	164TH AVE NE	7731	CLEVELAND ST						EC75311	08/15/2022	16:13	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North
City Street	King	Redmond	164TH AVE NE	7731	CLEVELAND ST						EB79536	10/18/2021	07:42	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North
City Street	King	Redmond	164TH AVE NE	7307	NE 74TH ST						EB31767	04/29/2021	11:37	Possible Injury	1	0	1	1	0	Vehicle turning left hits pedestrian	Making Left Turn		South	West		
City Street	King	Redmond	164TH AVE NE	7500	NE 76TH ST						EE11530	10/21/2023	10:20	Possible Injury	2	0	1	0	1	Vehicle Strikes Pedalcyclist	Going Straight Ahead		North	Northeast		
City Street	King	Redmond	166TH AVE NE	16400	BEAR CREEK PKWY						EC16790	01/20/2022	16:20	Possible Injury	1	0	2	0	0	Entering at angle	Making Left Turn	Going Straight Ahead	North	East	West	East
City Street	King	Redmond	166TH AVE NE		CLEVELAND ST						EC67085	07/19/2022	17:35	Possible Injury	1	0	2	0	0	From same direction - one right turn - one straight	Making Right Turn	Going Straight Ahead	South	East		
City Street	King	Redmond	170TH AVE NE	7448	NE 76TH ST						EC42393	04/26/2022	18:56	Possible Injury	1	0	1	1	0	Vehicle turning left hits pedestrian	Making Left Turn		East	South		
City Street	King	Redmond	BEAR CREEK PKWY	16488	166TH AVE NE						ED03127	10/28/2022	17:16	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Going Straight Ahead	North	East	East	West
City Street	King	Redmond	BEAR CREEK PKWY	5225	NE 74TH ST						EB85066	10/20/2021	15:34	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Making Left Turn	North	East	North	East
City Street	King	Redmond	CLEVELAND ST	16400	164TH AVE NE						ED92245	05/06/2023	17:51	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West
City Street	King	Redmond	CLEVELAND ST	16400	164TH AVE NE						EC12846	01/11/2022	15:05	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
City Street	King	Redmond	CLEVELAND ST	16700	166TH AVE NE						EB96444	12/01/2021	15:56	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West
City Street	King	Redmond	NE 76TH ST	16812	170TH AVE NE						EC64688	07/08/2022	16:53	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	NE 76TH ST	16812	170TH AVE NE						ED59038	05/09/2023	15:07	No Apparent Injury	0	0	2	0	0	From opposite direction - all others	Backing	Stopped at Signal or Stop Sign	Vehicle Backing	Vehicle Backing	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						EC57809	06/16/2022	12:27	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						EE16376	11/04/2023	07:40	Suspected Minor Injury	1	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	West	East
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						ED00098	10/26/2022	05:00	No Apparent Injury	0	0	1	0	0	Metal Sign Post	Going Straight Ahead		East	West		
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						ED73038	06/20/2023	17:36	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead	East	West	East	West
City Street	King	Redmond	REDMOND WAY	1096	140TH AVE NE						ED71096	06/17/2023	18:20	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	North	West	East	West
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						EB14321	03/15/2021	09:25	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						EC68784	07/12/2022	11:45	Possible Injury	1	0	1	1	0	Vehicle turning right hits pedestrian	Making Right Turn		West	South		
City Street	King	Redmond	REDMOND WAY		140TH AVE NE						ED49636	04/08/2023	14:14	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY		148TH AVE NE						EC97128	10/25/2022	13:21	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EC62927	07/03/2022	23:45	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West		
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EC46793	05/02/2022	20:20	Possible Injury	1	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	West	East
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EC80390	09/01/2022	10:11	Possible Injury	1	0	2	0	0	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign	West	South	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EC46483	05/14/2022	10:05	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						ED90832	03/16/2023	19:17	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						ED48467	03/27/2023	07:52	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Starting in Traffic Lane	West	East	West	East
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EE22197	11/12/2023	19:04	Possible Injury	1	0	2	0	0	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	West	East	East	South
City Street	King	Redmond	REDMOND WAY	14700	148TH AVE NE						EC76891	06/13/2022	13:45	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EA96620	01/03/2021	10:15	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EC96111	10/22/2022	20:35	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	East	West	North	East
City Street	King	Redmond	REDMOND WAY	14800	148TH AVE NE						EC23961	11/24/2022	20:00	No Apparent Injury	0	0	2	0	0	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn	East	West	East	North
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EC13227	12/30/2021	10:35	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South
City Street	King	Redmond	REDMOND WAY	14794	148TH AVE NE						EB19959	03/31/2021	19:16	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	North	South	West	North
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EE16380	11/04/2023	08:00	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one right turn	Making Left Turn	Making Left Turn	West	South	East	South
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EB71984	09/26/2021	16:56	Possible Injury	2	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	West	South	South	North
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EB58404	08/11/2021	14:00	Suspected Minor Injury	2	0	2	0	0	From opposite direction - one left turn - one right turn	Making Right Turn	Making Left Turn	West	South	East	South
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EB16871	03/12/2021	14:18	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	West	East	West	East
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EE05874	11/26/2023	13:20	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Starting in Traffic Lane	West	South	South	North
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EC67950	07/25/2022	17:06	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	West	East	East	South
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EC40949	04/20/2022	07:01	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						ED01309	01/14/2022	13:36	No Apparent Injury	0	0	2	0	0	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn	East	South	East	South
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EC38705	04/14/2022	08:55	No Apparent Injury	0	0	2	0	0	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn	East	South	East	South
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						ED92902	08/24/2023	16:30	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EC91369	01/09/2022	15:03	Possible Injury	1	0	2	0	0	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	West	East	West	East
City Street	King	Redmond	REDMOND WAY	15500	W LAKE SAMMAMISH PKWY NE						EB97352	12/05/2021	14:12	No Apparent Injury	0	0	2	0	0	From same direction - one right turn - one straight	Changing Lanes	Making Right Turn	West	East	West	South
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EB86535	11/06/2021	17:44	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead	East	West	East	West
City Street	King	Redmond	REDMOND WAY	15553	W LAKE SAMMAMISH PKWY NE						EC61310	06/24/2022	23:53	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Southeast	South	Northwest	Southeast
City Street	King	Redmond	REDMOND WAY	15286	WILLOWS RD NE						EB95322	11/17/2021	07:36	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY	15292	WILLOWS RD NE						ED89508	08/15/2023	10:15	Suspected Minor Injury	2	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	East	West	North	East
City Street	King	Redmond	REDMOND WAY	7900	WILLOWS RD NE						EC13228	01/12/2022	07:44	No Apparent Injury	0	0	2	0	0	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn	South	East	North	East
City Street	King	Redmond	REDMOND WAY	15286	WILLOWS RD NE						EB90312	11/15/2021	12:35	No Apparent Injury	0	0	3	0	0	Entering at angle	Making Left Turn	Going Straight Ahead	North	East	East	West
City Street	King	Redmond	REDMOND WAY	15292	WILLOWS RD NE						EE14545	10/18/2023	09:10	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - sideswipe	Going Straight Ahead	Stopped for Traffic	West	East	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	REDMOND WAY	15286	WILLOWS RD NE						EC51890	06/01/2022	17:44	Suspected Minor Injury	2	0	3	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West
City Street	King	Redmond	REDMOND WAY	15286	WILLOWS RD NE						EC95662	10/21/2022	10:48	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Other*	West	East	West	Vehicle Stopped
City Street	King	Redmond	REDMOND WY		148TH AVE NE						ED56319	05/01/2023	17:11	No Apparent Injury	0	0	1	0	0	Guardrail - Face	Making Left Turn		West	North		
City Street	King	Redmond	W LAKE SAMMAMISH PKWY NE	7507	REDMOND WAY						EB65898	09/08/2021	13:01	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	South	North	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	WILLOWS RD NE		REDMOND WAY						EA08064	02/04/2022	12:30	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	East	West	North	East
City Street	King	Redmond	WILLOWS RD NE		REDMOND WAY						ED03305	11/08/2022	05:54	No Apparent Injury	0	0	2	0	0	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn	North	East	North	East
City Street	King	Redmond	WILLOWS RD NE	7901	REDMOND WAY						EC58296	05/13/2022	01:00	Unknown	0	0	1	0	0	Linear Curb	Going Straight Ahead		South	South		
City Street	King	Redmond	WILLOWS RD NE	7901	REDMOND WAY						ED81224	02/23/2023	01:54	No Apparent Injury	0	0	1	0	0	Boulder (stationary)	Making Left Turn		North	East		
City Street	King	Redmond	WILLOWS RD NE	7901	REDMOND WAY						EE34472	12/04/2023	08:15	No Apparent Injury	0	0	2	0	0	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn	North	East	North	East
State Route	King	Redmond	202							7.46	EE27962	11/24/2023	17:31	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one right turn	Making Right Turn	Making Left Turn	South	East	North	East
State Route	King	Redmond	202							7.47	EE17182	11/08/2023	15:39	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Making Left Turn	East	South	North	East
State Route	King	Redmond	202							7.47	EE25535	11/26/2023	14:34	Unknown	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Stopped at Signal or Stop Sign	Other*	Vehicle Stopped	Vehicle Stopped		
State Route	King	Redmond	202							7.47	EC92836	10/10/2022	14:16	Possible Injury	1	0	1	0	0	Tree or Stump (stationary)	Making Left Turn		East	South		
State Route	King	Redmond	202							7.47	EC84109	09/15/2022	21:31	No Apparent Injury	0	0	3	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North
State Route	King	Redmond	202							7.47	ED97847	09/05/2023	08:48	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							7.47	EC95939	10/23/2022	12:43	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North
State Route	King	Redmond	202							7.47	EB67019	09/01/2021	19:38	Possible Injury	1	0	2	0	0	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	East	West	West	North
State Route	King	Redmond	202							7.47	ED58942	06/09/2023	21:10	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	South	West	North	South
State Route	King	Redmond	202							7.47	ED97606	09/09/2023	18:47	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							7.47	EB24864	04/25/2021	20:55	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							7.47	ED49480	04/01/2023	22:02	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.47	ED24507	01/10/2023	12:10	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one right turn	Making Left Turn	Making Right Turn	South	East	North	East
State Route	King	Redmond	202							7.47	EC89290	09/30/2022	06:35	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	North	East
State Route	King	Redmond	202							7.59	EB50134	07/20/2021	07:05	No Apparent Injury	0	0	3	0	0	From opposite direction - one stopped - head-on	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.59	ED92137	08/18/2023	08:12	Possible Injury	1	0	1	0	1	Vehicle Strikes Pedalcyclist	Making Right Turn		North	West		
State Route	King	Redmond	202							7.59	ED01521	12/13/2021	13:20	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Right Turn	East	West	North	West
State Route	King	Redmond	202							7.69	EB65894	09/07/2021	12:48	Possible Injury	4	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							7.69	ED50157	04/03/2023	18:11	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							7.69	EE12796	10/24/2023	19:30	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.69	EB80057	07/16/2021	12:51	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead	East	West	East	West
State Route	King	Redmond	202							7.69	EB65286	08/14/2021	21:00	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							7.69	ED73117	06/10/2023	21:54	Possible Injury	2	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South
State Route	King	Redmond	202							7.69	EB11874	02/28/2021	13:30	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West
State Route	King	Redmond	202							7.69	EB49635	07/16/2021	20:56	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped in Roadway	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.69	ED61880	05/19/2023	21:45	No Apparent Injury	0	0	2	0	0	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn	East	West	East	North
State Route	King	Redmond	202							7.69	ED53009	04/18/2023	15:45	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.69	EB48538	07/14/2021	12:08	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.78	EC79517	08/22/2022	22:25	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	West	North
State Route	King	Redmond	202							7.78	EB84822	10/28/2021	20:19	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	North
State Route	King	Redmond	202							7.78	EB13800	11/27/2021	18:03	Possible Injury	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	West	Vehicle Stopped
State Route	King	Redmond	202							7.78	EB76025	10/01/2021	16:19	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	West	Vehicle Stopped
State Route	King	Redmond	202							7.78	ED83939	07/18/2023	11:03	Possible Injury	1	0	2	0	0	Entering at angle	Making Left Turn	Going Straight Ahead	East	East	West	East
State Route	King	Redmond	202							7.78	EB17214	03/27/2021	10:26	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West
State Route	King	Redmond	202							7.78	ED37494	02/24/2023	19:33	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.79	EC40684	04/20/2022	07:47	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							7.80	EB16343	03/06/2021	16:10	Possible Injury	1	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped at Signal or Stop Sign	West	East	West	Vehicle Stopped
State Route	King	Redmond	202							7.80	EB33744	05/16/2021	14:41	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped at Signal or Stop Sign	East	South	East	Vehicle Stopped
State Route	King	Redmond	202							7.80	EC66916	07/16/2022	19:45	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	South	East	West	East
State Route	King	Redmond	202							7.80	EC53433	06/06/2022	07:43	Suspected Minor Injury	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	East	East	Vehicle Stopped

Exhibit E

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO
City Street	King	Redmond	BEAR CREEK PKWY	10700	LEARY WAY NE						EC20700	02/04/2022	22:18	Suspected Minor Injury	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	North	South	North	Vehicle Stopped
City Street	King	Redmond	LEARY WAY NE	15895	159TH PL NE						EC50709	05/27/2022	19:30	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	West	East	West	East
City Street	King	Redmond	LEARY WAY NE	15999	BEAR CREEK PKWY						EC45834	05/11/2022	12:05	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West
City Street	King	Redmond	LEARY WAY NE	15999	BEAR CREEK PKWY						EB26664	05/01/2021	13:29	Possible Injury	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	North	Southeast	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	LEARY WAY NE	15999	BEAR CREEK PKWY						EB75105	09/30/2021	12:56	Suspected Minor Injury	2	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West
City Street	King	Redmond	REDMOND WAY	15700	BEAR CREEK PKWY						EC77362	08/22/2022	10:29	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	South	East	West	East
City Street	King	Redmond	REDMOND WAY	15700	BEAR CREEK PKWY						EC52614	06/04/2022	21:05	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	West	East
City Street	King	Redmond	REDMOND WAY	15700	BEAR CREEK PKWY						EC89289	09/25/2022	16:50	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	Northeast	Southeast	Southwest	Northeast
City Street	King	Redmond	REDMOND WAY	15700	BEAR CREEK PKWY						EC92835	10/06/2022	12:40	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	Southeast	Northeast	West	East
State Route	King	Redmond	202							6.65	EC16271	01/29/2022	13:27	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							6.65	ED10117	11/25/2022	13:54	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West
State Route	King	Redmond	202							6.65	EC63510	07/07/2022	09:55	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South
State Route	King	Redmond	202							6.77	EB98521	12/03/2021	08:15	No Apparent Injury	0	0	2	0	0	From same direction - all others	Backing	Stopped for Traffic	Vehicle Stopped	Vehicle Backing	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.77	EC12558	01/13/2022	12:30	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West
State Route	King	Redmond	202							6.90	EC61273	07/01/2022	23:10	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South
State Route	King	Redmond	202							6.90	EB52194	07/12/2021	06:50	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	North
State Route	King	Redmond	202							6.90	ED04601	11/07/2022	10:12	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North
State Route	King	Redmond	202							6.90	EB01808	01/27/2021	12:00	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West
State Route	King	Redmond	202							6.90	EB60581	08/17/2021	16:15	Possible Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South
State Route	King	Redmond	202							6.97	EB54263	07/27/2021	15:26	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Changing Lanes	Stopped for Traffic	West	East	West	East
State Route	King	Redmond	202							6.97	EC01517	12/10/2021	20:49	Suspected Minor Injury	1	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West
State Route	King	Redmond	202							6.97	EC83625	09/13/2022	14:30	No Apparent Injury	0	0	2	0	0	Entering at angle	Backing	Going Straight Ahead	Vehicle Backing	Vehicle Backing	North	South
State Route	King	Redmond	202							6.97	EC10933	01/03/2022	06:31	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.97	ED03257	11/11/2022	19:48	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North
State Route	King	Redmond	202							6.97	ED16512	12/20/2022	09:29	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	West	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.97	EC12848	01/17/2022	09:08	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East
State Route	King	Redmond	202							6.97	EB58409	08/14/2021	13:16	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North
State Route	King	Redmond	520LX01180							0.00	EB11451	03/02/2021	09:27	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - both moving - rear-end	Changing Lanes	Going Straight Ahead	West	Southwest	West	West
State Route	King	Redmond	520LX01180							0.00	EB81336	10/22/2021	21:30	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	South	North	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	EC41382	04/17/2022	16:54	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped in Roadway	South	Northeast	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	EB77185	10/07/2021	12:47	Possible Injury	3	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West
State Route	King	Redmond	520LX01180							0.00	EC64689	07/10/2022	16:19	Suspected Minor Injury	1	0	2	0	0	Strikes or Was Struck by Object from the Load of Another Vehicle	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	EB89435	11/13/2021	19:18	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	North	South	North	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	EC74257	08/11/2022	08:21	No Apparent Injury	0	0	3	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West
State Route	King	Redmond	520LX01180							0.00	EB60580	08/16/2021	19:32	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.01	EC58297	06/22/2022	22:22	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	East
State Route	King	Redmond	520LX01180							0.01	EC78752	08/29/2022	16:15	Unknown	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped at Signal or Stop Sign	South	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.01	EB44707	06/25/2021	20:44	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.01	EC20140	01/26/2022	17:49	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	East
State Route	King	Redmond	520LX01180							0.01	EC56465	05/22/2022	18:41	No Apparent Injury	0	0	3	0	0	Entering at angle	Going Straight Ahead	Starting in Traffic Lane	South	North	Vehicle Stopped	North
City Street	King	Redmond	BEAR CREEK PKWY	7427	LEARY WAY NE						EE25864	12/01/2023	17:53	Possible Injury	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	North	South	Vehicle Stopped	Vehicle Stopped
City Street	King	Redmond	BEAR CREEK PKWY	15709	REDMOND WAY						ED40400	02/21/2023	17:45	Possible Injury	2	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North
City Street	King	Redmond	LEARY WAY NE	15999	BEAR CREEK PKWY						ED27541	01/18/2023	12:40	No Apparent Injury	0	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West
City Street	King	Redmond	LEARY WAY NE	15999	BEAR CREEK PKWY						EE22948	11/22/2023	12:20	Suspected Minor Injury	2	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	West	East
State Route	King	Redmond	202							6.65	EE28384	12/08/2023	16:46	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	South	North	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.77	ED98934	09/12/2023	19:09	No Apparent Injury	0	0	2	0	0	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West
State Route	King	Redmond	202							6.77	ED55154	04/07/2023	20:05	Possible Injury	1	0	1	0	0	Signal Pole	Going Straight Ahead		West	East		
State Route	King	Redmond	202							6.90	ED91623	08/11/2023	16:43	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Right Turn	Going Straight Ahead	North	West	East	West
State Route	King	Redmond	202							6.97	EE08711	10/04/2023	19:43	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign	North	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.97	ED88621	08/08/2023	17:36	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	North	South	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.97	EE31881	12/12/2023	20:40	Possible Injury	1	0	2	0	0	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North
State Route	King	Redmond	202							6.97	ED97107	09/04/2023	16:10	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	202							6.97	ED76076	06/30/2023	06:33	Suspected Serious Injury	1	0	1	1	0	Vehicle turning left hits pedestrian	Making Left Turn		North	East		
State Route	King	Redmond	520LX01180							0.00	ED73681	06/22/2023	10:55	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Going Straight Ahead	Stopped for Traffic	South	East	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	ED64501	05/26/2023	13:35	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign	Southwest	Northwest	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	ED39220	02/24/2023	10:17	No Apparent Injury	0	0	2	0	0	Entering at angle	Making Left Turn	Stopped for Traffic	North	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.00	ED56795	05/02/2023	17:00	No Apparent Injury	0	0	2	0	0	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	East	West	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.01	EE23390	11/22/2023	17:15	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- both moving -- rear end	Making Right Turn	Making Right Turn	South	East	South	East
State Route	King	Redmond	520LX01180							0.01	EE16184	11/02/2023	18:50	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	North	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.01	EE01188	09/20/2023	16:44	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	East
State Route	King	Redmond	520LX01180							0.01	EE27710	12/05/2023	17:21	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	South	East
State Route	King	Redmond	520LX01180							0.01	ED93713	08/28/2023	17:20	Possible Injury	2	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Going Straight Ahead	Stopped for Traffic	South	North	Vehicle Stopped	Vehicle Stopped
State Route	King	Redmond	520LX01180							0.02	EE35739	12/18/2023	18:57	No Apparent Injury	0	0	2	0	0	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic	South	East	Vehicle Stopped	Vehicle Stopped

Appendix D

Existing Traffic Counts

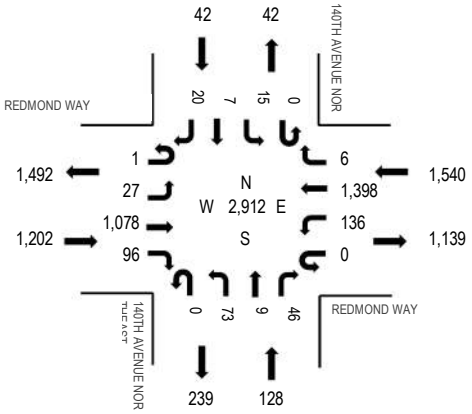
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

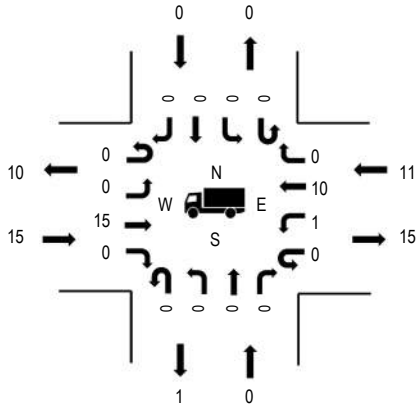
Location: 140TH AVENUE NORTHEAST & REDMOND WAY PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

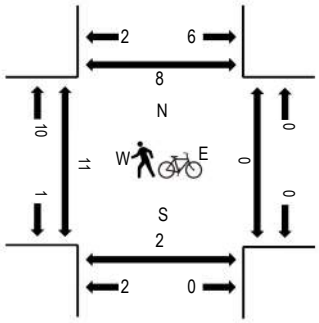
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.2%	0.92
WB	0.7%	0.90
NB	0.0%	0.89
SB	0.0%	0.81
All	0.9%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	REDMOND WAY Eastbound				REDMOND WAY Westbound				140TH AVENUE NORTHEAST Northbound				140TH AVENUE NORTHEAST Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	1	283	30	0	33	297	0	0	8	4	21	0	1	2	8	688	2,834
4:15 PM	0	6	225	26	0	29	343	3	0	15	0	20	0	4	2	6	679	2,801
4:30 PM	1	5	253	14	0	29	362	2	0	14	5	9	0	5	2	3	704	2,912
4:45 PM	0	9	290	29	0	35	358	0	0	17	1	11	0	4	2	7	763	2,822
5:00 PM	0	10	247	25	0	35	288	4	0	18	2	15	0	3	3	5	655	2,765
5:15 PM	0	3	288	28	0	37	390	0	0	24	1	11	0	3	0	5	790	
5:30 PM	0	4	209	18	0	26	322	1	0	14	1	12	0	5	1	1	614	
5:45 PM	0	2	227	23	0	28	377	2	0	22	3	17	0	1	1	3	706	
Count Total	1	40	2,022	193	0	252	2,737	12	0	132	17	116	0	26	13	38	5,599	
Peak Hour	1	27	1,078	96	0	136	1,398	6	0	73	9	46	0	15	7	20	2,912	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	10	2	5	1	18	4:00 PM	0	0	0	0	0	4:00 PM	4	0	0	1	5
4:15 PM	3	1	4	3	11	4:15 PM	0	0	0	0	0	4:15 PM	2	0	0	0	2
4:30 PM	8	0	3	0	11	4:30 PM	0	0	0	0	0	4:30 PM	7	2	0	4	13
4:45 PM	1	0	3	0	4	4:45 PM	0	0	0	0	0	4:45 PM	1	0	0	1	2
5:00 PM	2	0	4	0	6	5:00 PM	0	0	0	0	0	5:00 PM	3	0	0	2	5
5:15 PM	4	0	1	0	5	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	1	1
5:30 PM	2	0	1	0	3	5:30 PM	0	1	0	0	1	5:30 PM	1	0	0	1	2
5:45 PM	7	0	0	0	7	5:45 PM	0	0	0	0	0	5:45 PM	1	0	0	1	2
Count Total	37	3	21	4	65	Count Total	0	1	0	0	1	Count Total	19	2	0	11	32
Peak Hour	15	0	11	0	26	Peak Hour	0	0	0	0	0	Peak Hour	11	2	0	8	21

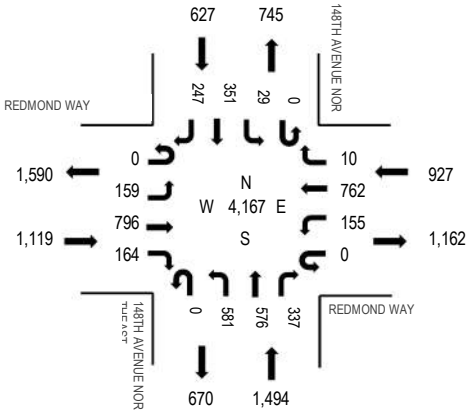
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

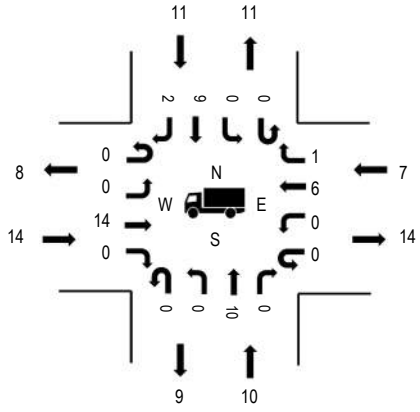
Location: 148TH AVENUE NORTHEAST & REDMOND WAY PM
Date: Tuesday, October 15, 2024
Peak Hour: 05:00 PM - 06:00 PM

Peak Hour

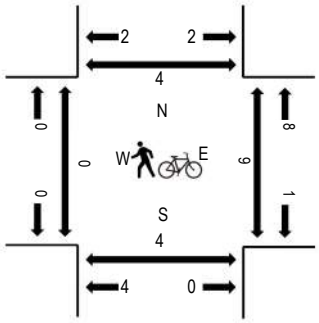
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.3%	0.84
WB	0.8%	0.84
NB	0.7%	0.92
SB	1.8%	0.95
All	1.0%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	REDMOND WAY Eastbound				REDMOND WAY Westbound				148TH AVENUE NORTHEAST Northbound				148TH AVENUE NORTHEAST Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	67	205	41	0	43	162	2	0	108	142	63	0	10	60	59	962	4,048
4:15 PM	0	53	210	54	0	33	215	6	0	163	128	76	0	10	63	52	1,063	4,070
4:30 PM	0	48	210	42	0	38	199	4	0	152	127	75	0	13	80	54	1,042	4,125
4:45 PM	0	49	230	45	0	32	178	4	0	119	124	76	0	6	65	53	981	4,142
5:00 PM	0	42	194	36	0	33	143	0	0	133	140	98	0	10	81	74	984	4,167
5:15 PM	0	43	231	58	0	35	239	3	0	145	122	85	0	6	90	61	1,118	
5:30 PM	0	37	206	34	0	46	206	5	0	156	138	70	0	5	97	59	1,059	
5:45 PM	0	37	165	36	0	41	174	2	0	147	176	84	0	8	83	53	1,006	
Count Total	0	376	1,651	346	0	301	1,516	26	0	1,123	1,097	627	0	68	619	465	8,215	
Peak Hour	0	159	796	164	0	155	762	10	0	581	576	337	0	29	351	247	4,167	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	8	3	4	2	17	4:00 PM	0	0	0	0	0	4:00 PM	3	5	5	2	15
4:15 PM	11	4	3	3	21	4:15 PM	0	0	0	0	0	4:15 PM	0	1	6	1	8
4:30 PM	8	8	2	3	21	4:30 PM	0	0	0	0	0	4:30 PM	5	0	1	5	11
4:45 PM	2	3	2	2	9	4:45 PM	0	0	0	0	0	4:45 PM	0	1	1	1	3
5:00 PM	2	4	2	4	12	5:00 PM	0	1	0	0	1	5:00 PM	0	1	4	0	5
5:15 PM	4	2	1	1	8	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	2	2
5:30 PM	1	2	2	2	7	5:30 PM	0	0	0	0	0	5:30 PM	0	1	5	2	8
5:45 PM	7	2	2	4	15	5:45 PM	0	0	0	0	0	5:45 PM	0	2	0	0	2
Count Total	43	28	18	21	110	Count Total	0	1	0	0	1	Count Total	8	11	22	13	54
Peak Hour	14	10	7	11	42	Peak Hour	0	1	0	0	1	Peak Hour	0	4	9	4	17

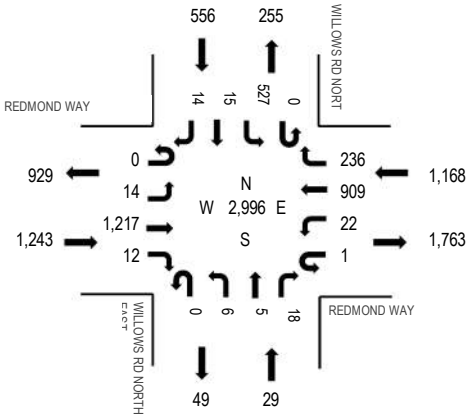
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

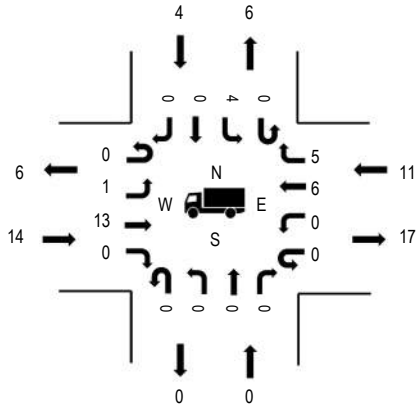
Location: WILLOWS RD NORTHEAST & REDMOND WAY PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

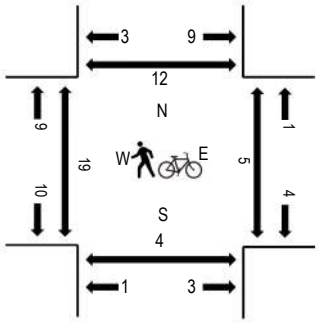
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.1%	0.91
WB	0.9%	0.88
NB	0.0%	0.81
SB	0.7%	0.90
All	1.0%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	REDMOND WAY Eastbound				REDMOND WAY Westbound				WILLOWS RD NORTHEAST Northbound				WILLOWS RD NORTHEAST Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	4	257	2	0	3	204	79	0	3	4	3	0	116	0	7	682	2,875
4:15 PM	0	4	276	2	0	2	247	53	0	1	1	3	0	101	2	4	696	2,886
4:30 PM	0	4	274	1	1	8	241	65	0	1	1	4	0	146	3	5	754	2,996
4:45 PM	0	3	334	3	0	4	204	62	0	1	3	2	0	121	4	2	743	2,923
5:00 PM	0	2	278	4	0	6	188	57	0	1	0	7	0	144	3	3	693	2,819
5:15 PM	0	5	331	4	0	4	276	52	0	3	1	5	0	116	5	4	806	
5:30 PM	0	3	242	2	0	10	224	56	0	2	1	0	0	136	4	1	681	
5:45 PM	0	2	273	5	0	4	192	60	0	0	3	2	0	93	3	2	639	
Count Total	0	27	2,265	23	1	41	1,776	484	0	12	14	26	0	973	24	28	5,694	
Peak Hour	0	14	1,217	12	1	22	909	236	0	6	5	18	0	527	15	14	2,996	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	3	5	10	4:00 PM	0	0	0	0	0	4:00 PM	3	2	0	2	7
4:15 PM	3	0	2	3	8	4:15 PM	0	0	0	0	0	4:15 PM	1	1	2	3	7
4:30 PM	7	0	3	2	12	4:30 PM	0	0	0	1	1	4:30 PM	5	1	3	5	14
4:45 PM	2	0	3	1	6	4:45 PM	0	0	0	0	0	4:45 PM	6	1	0	0	7
5:00 PM	2	0	3	0	5	5:00 PM	0	0	0	0	0	5:00 PM	3	1	2	3	9
5:15 PM	3	0	2	1	6	5:15 PM	0	0	0	0	0	5:15 PM	5	1	0	4	10
5:30 PM	3	0	1	4	8	5:30 PM	0	0	0	0	0	5:30 PM	5	1	1	3	10
5:45 PM	7	0	2	2	11	5:45 PM	0	0	0	0	0	5:45 PM	2	1	0	1	4
Count Total	29	0	19	18	66	Count Total	0	0	0	1	1	Count Total	30	9	8	21	68
Peak Hour	14	0	11	4	29	Peak Hour	0	0	0	1	1	Peak Hour	19	4	5	12	40

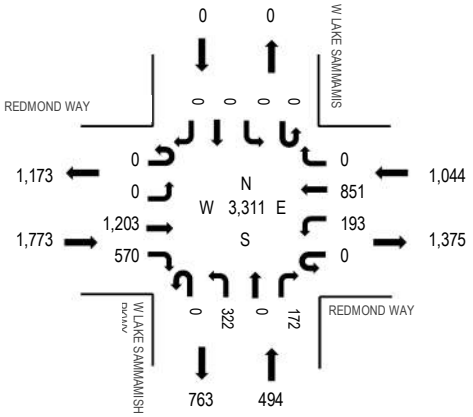
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

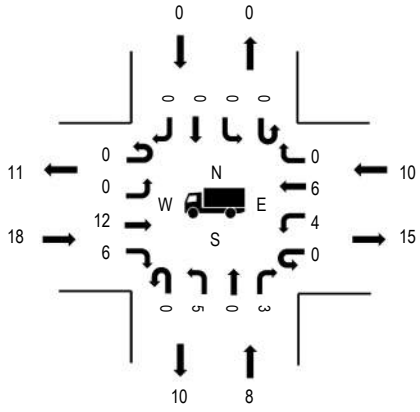
Location: W LAKE SAMMAMISH PKWY & REDMOND WAY PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

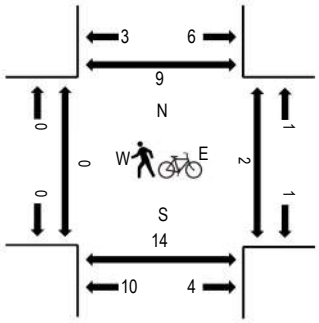
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.0%	0.98
WB	1.0%	0.92
NB	1.6%	0.83
SB	0.0%	0.00
All	1.1%	0.99

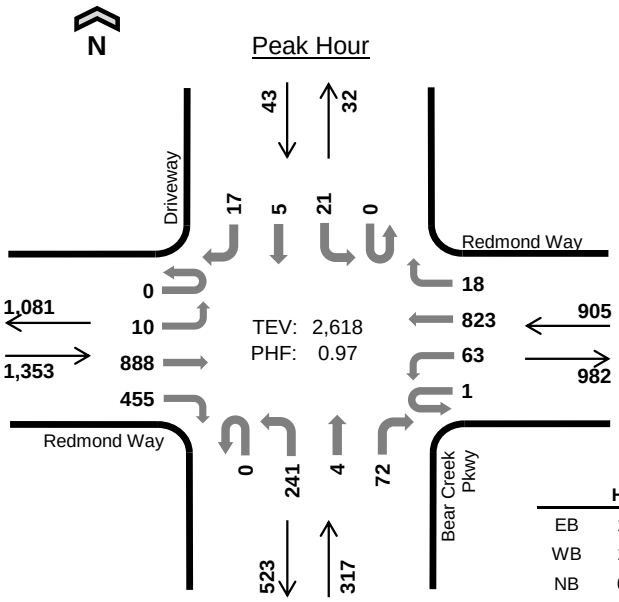
Traffic Counts - Motorized Vehicles

Interval Start Time	REDMOND WAY Eastbound				REDMOND WAY Westbound				W LAKE SAMMAMISH PKWY Northbound				W LAKE SAMMAMISH PKWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	233	129	0	49	200	0	0	98	0	29	0	0	0	0	738	3,151
4:15 PM	0	0	260	122	0	46	214	0	0	96	0	39	0	0	0	0	777	3,251
4:30 PM	0	0	307	135	0	46	233	0	0	78	0	31	0	0	0	0	830	3,311
4:45 PM	0	0	311	142	0	39	191	0	0	80	0	43	0	0	0	0	806	3,300
5:00 PM	0	0	295	145	0	59	225	0	0	73	0	41	0	0	0	0	838	3,237
5:15 PM	0	0	290	148	0	49	202	0	0	91	0	57	0	0	0	0	837	
5:30 PM	0	0	286	112	0	50	230	0	0	87	0	54	0	0	0	0	819	
5:45 PM	0	0	261	86	0	63	195	0	0	91	0	47	0	0	0	0	743	
Count Total	0	0	2,243	1,019	0	401	1,690	0	0	694	0	341	0	0	0	0	6,388	
Peak Hour	0	0	1,203	570	0	193	851	0	0	322	0	172	0	0	0	0	3,311	

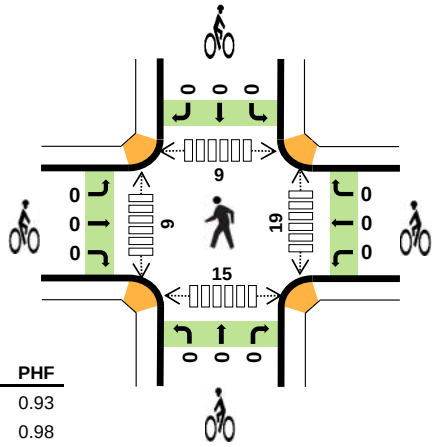
Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	6	2	2	0	10	4:00 PM	0	0	0	0	0	4:00 PM	0	3	2	4	9
4:15 PM	2	0	4	0	6	4:15 PM	0	0	1	0	1	4:15 PM	0	5	0	1	6
4:30 PM	9	2	1	0	12	4:30 PM	0	0	0	0	0	4:30 PM	0	2	0	0	2
4:45 PM	3	1	4	0	8	4:45 PM	0	1	1	0	2	4:45 PM	0	7	1	1	9
5:00 PM	2	2	3	0	7	5:00 PM	0	0	0	0	0	5:00 PM	0	2	0	6	8
5:15 PM	4	3	2	0	9	5:15 PM	0	1	1	0	2	5:15 PM	0	3	1	2	6
5:30 PM	7	2	1	0	10	5:30 PM	0	0	0	0	0	5:30 PM	0	7	3	7	17
5:45 PM	7	2	3	0	12	5:45 PM	0	0	0	0	0	5:45 PM	0	5	0	2	7
Count Total	40	14	20	0	74	Count Total	0	2	3	0	5	Count Total	0	34	7	23	64
Peak Hour	18	8	10	0	36	Peak Hour	0	2	2	0	4	Peak Hour	0	14	2	9	25

Bear Creek Pkwy
Redmond Way



Date: 01/30/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	1.4%	0.93
WB	1.3%	0.98
NB	0.0%	0.89
SB	0.0%	0.90
TOTAL	1.2%	0.97

Two-Hour Count Summaries

Interval Start	Redmond Way Eastbound				Redmond Way Westbound				Bear Creek Pkwy Northbound				Driveway Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	178	82	0	18	179	2	0	62	1	12	0	2	1	6	544	0
4:15 PM	0	5	184	104	0	16	221	4	0	56	0	19	0	4	1	2	616	0
4:30 PM	0	1	211	79	0	8	194	9	0	71	0	12	0	5	1	1	592	0
4:45 PM	0	3	219	84	1	22	213	2	0	65	0	16	0	1	1	4	631	2,383
5:00 PM	**0**	**4**	**215**	**108**	**0**	**18**	**203**	**4**	**0**	**63**	**0**	**18**	**0**	**6**	**1**	**4**	**644**	2,483
5:15 PM	**0**	**0**	**210**	**117**	**0**	**15**	**212**	**2**	**0**	**63**	**2**	**13**	**0**	**2**	**2**	**5**	**643**	2,510
5:30 PM	**0**	**2**	**213**	**121**	**1**	**12**	**198**	**10**	**0**	**66**	**2**	**21**	**0**	**8**	**1**	**2**	**657**	2,575
5:45 PM	**0**	**4**	**250**	**109**	**0**	**18**	**210**	**2**	**0**	**49**	**0**	**20**	**0**	**5**	**1**	**6**	**674**	**2,618**
Count Total	0	20	1,680	804	2	127	1,630	35	0	495	5	131	0	33	9	30	5,001	0
Peak Hour All	**0**	**10**	**888**	**455**	**1**	**63**	**823**	**18**	**0**	**241**	**4**	**72**	**0**	**21**	**5**	**17**	**2,618**	**0**
Peak Hour HV	**0**	**0**	**17**	**2**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31**	**0**
Peak Hour HV%	**-**	**0%**	**2%**	**0%**	**0%**	**0%**	**1%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	7	6	1	0	*14*	0	0	0	0	*0*	3	0	2	4	*9*
4:15 PM	4	2	0	0	*6*	0	0	0	0	*0*	2	2	4	0	*8*
4:30 PM	7	6	0	0	*13*	0	0	0	0	*0*	3	1	4	2	*10*
4:45 PM	3	2	0	0	*5*	0	0	0	0	*0*	6	3	4	3	*16*
5:00 PM	**4**	**4**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**2**	**3**	*8*
5:15 PM	**3**	**4**	**0**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**6**	**4**	**4**	**8**	*22*
5:30 PM	**4**	**2**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**9**	**3**	**2**	**4**	*18*
5:45 PM	**8**	**2**	**0**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**1**	**0**	***4***
Count Total	40	28	1	0	*69*	0	0	0	0	*0*	33	15	23	24	*95*
Peak Hour	**19**	**12**	**0**	**0**	***31***	**0**	**0**	**0**	**0**	***0***	**19**	**9**	**9**	**15**	***52***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Redmond Way Eastbound				Redmond Way Westbound				Bear Creek Pkwy Northbound				Driveway Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	6	1	0	2	4	0	0	1	0	0	0	0	0	0	14	0
4:15 PM	0	0	3	1	0	0	2	0	0	0	0	0	0	0	0	0	6	0
4:30 PM	0	0	5	2	0	0	6	0	0	0	0	0	0	0	0	0	13	0
4:45 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	38
5:00 PM	**0**	**0**	**4**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	32
5:15 PM	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	33
5:30 PM	**0**	**0**	**3**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	26
5:45 PM	**0**	**0**	**7**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**31**
Count Total	0	0	34	6	0	2	26	0	0	1	0	0	0	0	0	0	69	0
Peak Hour	**0**	**0**	**17**	**2**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31**	**0**

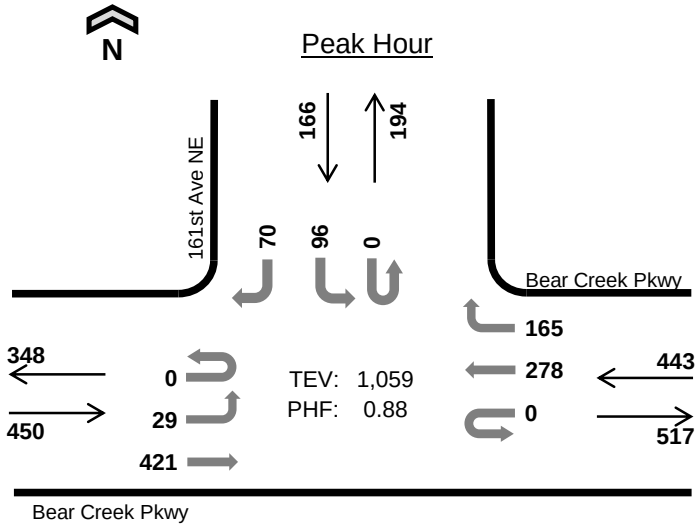
Two-Hour Count Summaries - Bikes

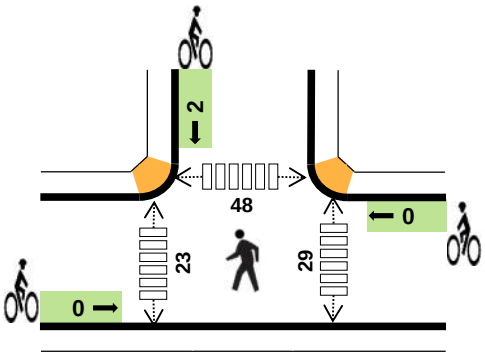
Interval Start	Redmond Way Eastbound			Redmond Way Westbound			Bear Creek Pkwy Northbound			Driveway Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

161st Ave NE
Bear Creek Pkwy

Date: Tue, Oct 17, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	1.3%	0.84
WB	0.5%	0.94
NB	-	-
SB	0.6%	0.85
TOTAL	0.8%	0.88

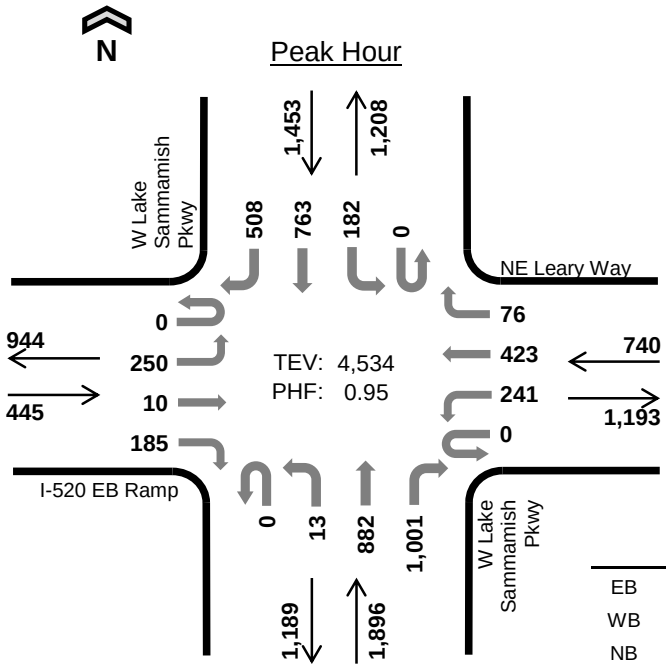
Two-Hour Count Summaries

Interval Start	Bear Creek Pkwy Eastbound				Bear Creek Pkwy Westbound				0 Northbound				161st Ave NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	12	58	0	0	0	74	21	0	0	0	0	0	31	0	10	206	0
4:15 PM	0	10	95	0	0	0	76	43	0	0	0	0	0	30	0	12	266	0
4:30 PM	0	12	80	0	0	0	65	38	0	0	0	0	0	28	0	8	231	0
4:45 PM	**0**	**5**	**108**	**0**	**0**	**0**	**69**	**44**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**12**	**261**	964
5:00 PM	**0**	**11**	**90**	**0**	**0**	**0**	**74**	**26**	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**20**	**240**	998
5:15 PM	**0**	**6**	**96**	**0**	**0**	**0**	**69**	**43**	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**13**	**257**	989
5:30 PM	**0**	**7**	**127**	**0**	**0**	**0**	**66**	**52**	**0**	**0**	**0**	**0**	**0**	**24**	**0**	**25**	**301**	**1,059**
5:45 PM	0	9	111	0	0	0	64	33	0	0	0	0	0	27	0	16	260	1,058
Count Total	0	72	765	0	0	0	557	300	0	0	0	0	0	212	0	116	2,022	0
Peak Hour	**0**	**29**	**421**	**0**	**0**	**0**	**278**	**165**	**0**	**0**	**0**	**0**	**0**	**96**	**0**	**70**	**1,059**	**0**

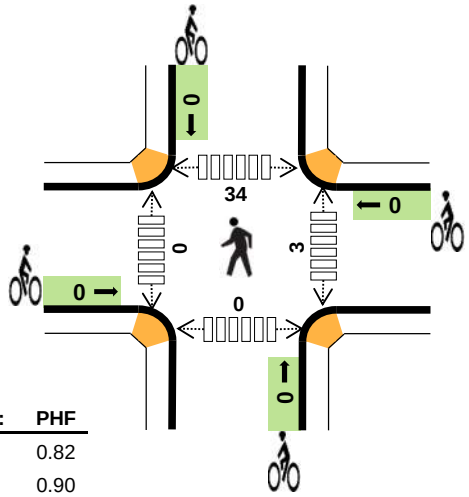
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	1	*2*	0	0	0	0	*0*	2	12	0	0	*14*
4:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	6	4	9	0	*19*
4:30 PM	1	2	0	0	*3*	2	0	0	0	*2*	6	4	4	0	*14*
4:45 PM	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**6**	**3**	**7**	**0**	*16*
5:00 PM	**1**	**2**	**0**	**0**	***3***	**0**	**0**	**0**	**2**	***2***	**2**	**6**	**12**	**0**	*20*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**8**	**6**	**15**	**0**	*29*
5:30 PM	**4**	**0**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**13**	**8**	**14**	**0**	***35***
5:45 PM	0	2	0	1	*3*	0	0	0	0	*0*	9	10	15	0	*34*
Count Total	8	6	0	4	*18*	2	0	0	2	*4*	52	53	76	0	*181*
Peak Hr	**6**	**2**	**0**	**1**	***9***	**0**	**0**	**0**	**2**	***2***	**29**	**23**	**48**	**0**	***100***

W Lake Sammamish Pkwy
NE Leary Way



Date: Tue, Oct 17, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	4.0%	0.82
WB	1.9%	0.90
NB	2.3%	0.97
SB	1.7%	0.90
TOTAL	2.2%	0.95

Two-Hour Count Summaries

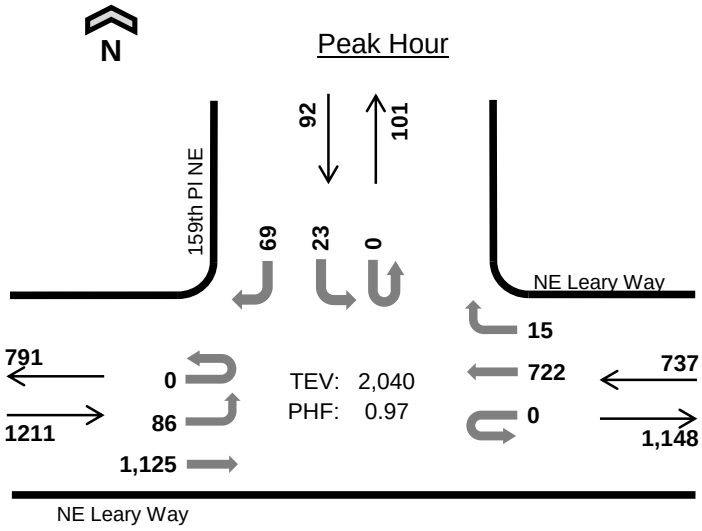
Interval Start	I-520 EB Ramp				NE Leary Way				W Lake Sammamish Pkwy				W Lake Sammamish Pkwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	67	4	45	0	70	103	25	0	8	233	226	0	43	268	121	1,213	0
4:15 PM	0	74	6	35	0	66	97	25	0	3	212	253	0	43	164	136	1,114	0
4:30 PM	0	59	4	41	0	67	72	19	0	4	223	220	1	46	172	139	1,067	0
4:45 PM	**0**	**73**	**3**	**33**	**0**	**52**	**98**	**21**	**0**	**0**	**228**	**251**	**0**	**38**	**181**	**132**	**1,110**	4,504
5:00 PM	**0**	**45**	**2**	**45**	**0**	**64**	**114**	**28**	**0**	**2**	**224**	**228**	**0**	**54**	**205**	**136**	**1,147**	4,438
5:15 PM	**0**	**62**	**1**	**46**	**0**	**70**	**99**	**20**	**0**	**5**	**221**	**263**	**0**	**45**	**222**	**136**	**1,190**	4,514
5:30 PM	**0**	**70**	**4**	**61**	**0**	**55**	**112**	**7**	**0**	**6**	**209**	**259**	**0**	**45**	**155**	**104**	**1,087**	**4,534**
5:45 PM	0	69	4	36	0	49	76	17	0	15	248	244	0	58	154	112	1,082	4,506
Count Total	0	519	28	342	0	493	771	162	0	43	1,798	1,944	1	372	1,521	1,016	9,010	0
Peak Hour	**0**	**250**	**10**	**185**	**0**	**241**	**423**	**76**	**0**	**13**	**882**	**1,001**	**0**	**182**	**763**	**508**	**4,534**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

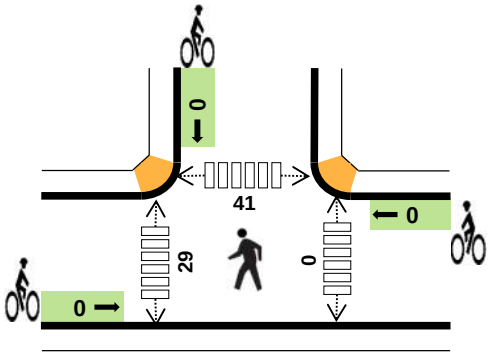
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	5	20	10	*39*	0	0	0	0	*0*	0	0	14	0	*14*
4:15 PM	9	6	10	6	*31*	0	0	0	0	*0*	0	0	10	0	*10*
4:30 PM	16	3	12	4	*35*	0	0	0	0	*0*	0	0	10	0	*10*
4:45 PM	**12**	**5**	**20**	**5**	***42***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**9**	**0**	*10*
5:00 PM	**4**	**2**	**7**	**6**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**8**	**0**	*8*
5:15 PM	**2**	**5**	**9**	**7**	***23***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**7**	**0**	*9*
5:30 PM	**0**	**2**	**7**	**7**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**10**	**0**	***10***
5:45 PM	1	3	10	6	*20*	0	0	0	0	*0*	0	0	6	0	*6*
Count Total	48	31	95	51	*225*	0	0	0	0	*0*	3	0	74	0	*77*
Peak Hour	**18**	**14**	**43**	**25**	***100***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**34**	**0**	***37***

159th Pl NE
NE Leary Way

Peak Hour



Date: Thu, Oct 12, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	1.2%	0.94
WB	0.7%	0.89
NB	-	-
SB	0.0%	0.77
TOTAL	1.0%	0.97

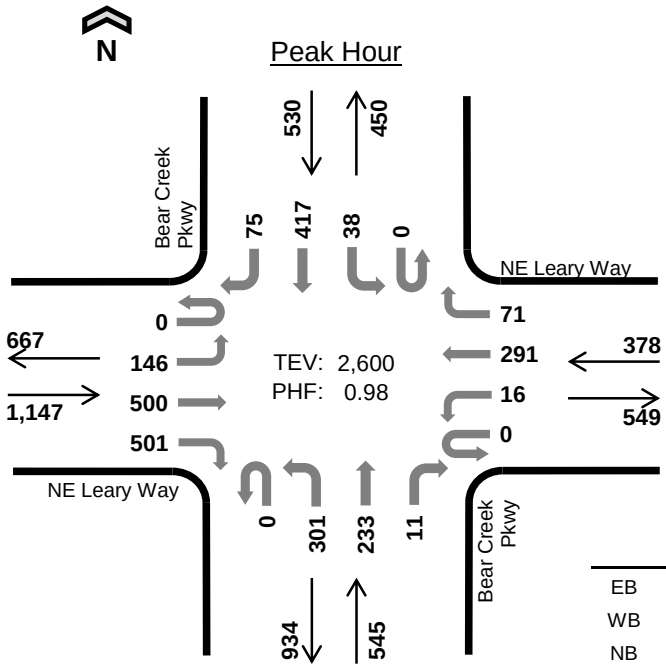
Two-Hour Count Summaries

Interval Start	NE Leary Way Eastbound				NE Leary Way Westbound				0 Northbound				159th Pl NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	22	244	0	0	0	203	4	0	0	0	0	0	3	0	15	491	0
4:15 PM	0	15	302	0	0	0	165	3	0	0	0	0	0	4	0	22	511	0
4:30 PM	0	25	239	0	0	0	142	5	0	0	0	0	0	5	0	22	438	0
4:45 PM	0	16	267	0	0	0	175	7	0	0	0	0	0	5	0	17	487	1,927
5:00 PM	**0**	**24**	**252**	**0**	**0**	**0**	**203**	**4**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**24**	**513**	1,949
5:15 PM	**0**	**24**	**291**	**0**	**0**	**0**	**182**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**13**	**515**	1,953
5:30 PM	**0**	**20**	**277**	**0**	**0**	**0**	**170**	**1**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**14**	**487**	2,002
5:45 PM	**0**	**18**	**305**	**0**	**0**	**0**	**167**	**9**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**18**	**525**	**2,040**
Count Total	0	164	2,177	0	0	0	1,407	34	0	0	0	0	0	40	0	145	3,967	0
Peak Hour	**0**	**86**	**1,125**	**0**	**0**	**0**	**722**	**15**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**69**	**2,040**	**0**

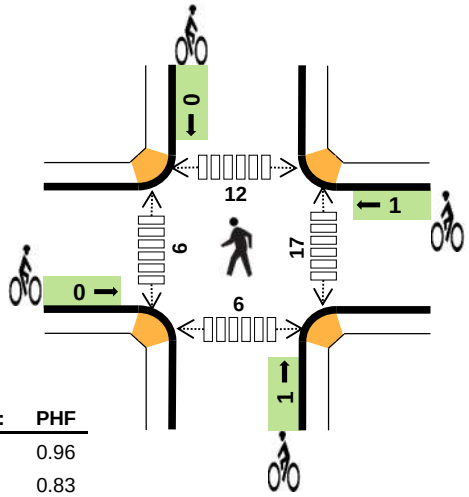
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	5	0	1	*11*	0	0	0	0	*0*	0	2	5	0	*7*
4:15 PM	5	2	0	1	*8*	2	0	0	0	*2*	0	0	8	0	*8*
4:30 PM	2	1	0	0	*3*	0	0	0	0	*0*	0	1	4	0	*5*
4:45 PM	4	2	0	1	*7*	0	0	0	0	*0*	0	3	4	0	*7*
5:00 PM	**3**	**0**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**8**	**12**	**0**	*20*
5:15 PM	**3**	**2**	**0**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**5**	**10**	**0**	*15*
5:30 PM	**3**	**1**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**9**	**7**	**0**	*16*
5:45 PM	**6**	**2**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**7**	**12**	**0**	***19***
Count Total	31	15	0	3	*49*	2	0	0	0	*2*	0	35	62	0	*97*
Peak Hr	**15**	**5**	**0**	**0**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**29**	**41**	**0**	***70***

Bear Creek Pkwy
NE Leary Way



Date: Tue, Oct 17, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	1.5%	0.96
WB	0.8%	0.83
NB	1.5%	0.89
SB	1.1%	0.85
TOTAL	1.3%	0.98

Two-Hour Count Summaries

Interval Start	NE Leary Way Eastbound				NE Leary Way Westbound				Bear Creek Pkwy Northbound				Bear Creek Pkwy Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	31	117	105	0	3	92	13	0	76	64	7	0	7	62	21	598	0
4:15 PM	0	42	116	129	0	2	67	15	0	76	62	3	0	6	96	24	638	0
4:30 PM	0	48	108	117	0	8	57	17	0	68	49	6	0	12	73	28	591	0
4:45 PM	0	45	92	93	0	4	75	11	0	74	60	7	0	6	92	21	580	2,407
5:00 PM	**0**	**20**	**118**	**133**	**0**	**7**	**85**	**22**	**0**	**81**	**59**	**4**	**0**	**7**	**103**	**18**	**657**	2,466
5:15 PM	**0**	**48**	**126**	**122**	**0**	**3**	**86**	**15**	**0**	**87**	**62**	**4**	**0**	**5**	**86**	**17**	**661**	2,489
5:30 PM	**0**	**40**	**125**	**117**	**0**	**1**	**55**	**23**	**0**	**59**	**60**	**1**	**0**	**13**	**122**	**21**	**637**	2,535
5:45 PM	**0**	**38**	**131**	**129**	**0**	**5**	**65**	**11**	**0**	**74**	**52**	**2**	**0**	**13**	**106**	**19**	**645**	**2,600**
Count Total	0	312	933	945	0	33	582	127	0	595	468	34	0	69	740	169	5,007	0
Peak Hour	**0**	**146**	**500**	**501**	**0**	**16**	**291**	**71**	**0**	**301**	**233**	**11**	**0**	**38**	**417**	**75**	**2,600**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	8	1	4	2	*15*	0	0	0	0	*0*	1	1	3	2	*7*
4:15 PM	1	1	5	1	*8*	1	0	0	0	*1*	4	0	4	2	*10*
4:30 PM	5	0	2	2	*9*	0	0	0	0	*0*	2	0	0	4	*6*
4:45 PM	4	2	4	2	*12*	0	0	0	0	*0*	1	2	2	1	*6*
5:00 PM	**3**	**0**	**2**	**1**	***6***	**0**	**1**	**1**	**0**	***2***	**6**	**0**	**0**	**0**	*6*
5:15 PM	**6**	**3**	**2**	**1**	***12***	**0**	**0**	**0**	**0**	***0***	**2**	**2**	**2**	**3**	*9*
5:30 PM	**4**	**0**	**2**	**2**	***8***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**3**	**0**	*8*
5:45 PM	**4**	**0**	**2**	**2**	***8***	**0**	**0**	**0**	**0**	***0***	**6**	**2**	**7**	**3**	***18***
Count Total	35	7	23	13	*78*	1	1	1	0	*3*	25	9	21	15	*70*
Peak Hour	**17**	**3**	**8**	**6**	***34***	**0**	**1**	**1**	**0**	***2***	**17**	**6**	**12**	**6**	***41***

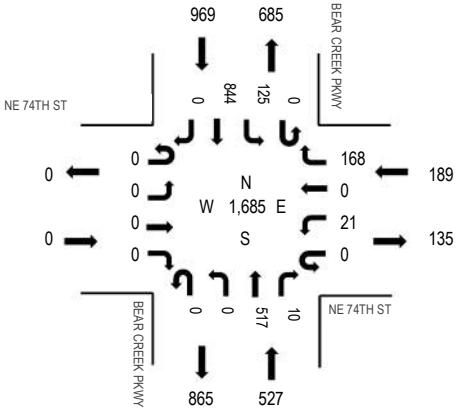
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

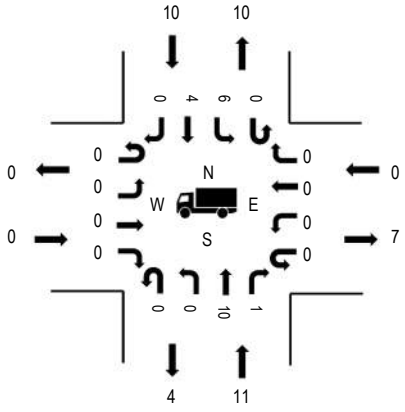
Location: BEAR CREEK PKWY & NE 74TH ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

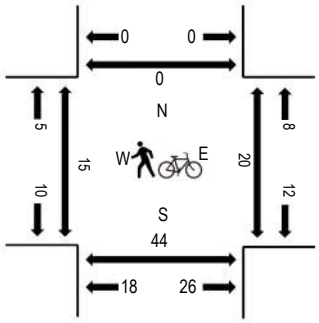
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.86
NB	2.1%	0.93
SB	1.0%	0.96
All	1.2%	0.98

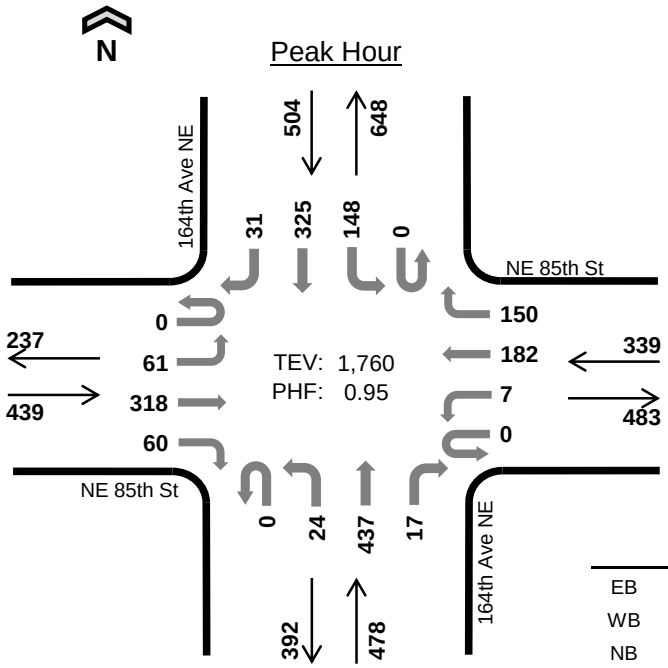
Traffic Counts - Motorized Vehicles

Interval Start Time	NE 74TH ST Eastbound				NE 74TH ST Westbound				BEAR CREEK PKWY Northbound				BEAR CREEK PKWY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	3	0	38	0	0	113	4	0	43	212	0	413	1,611
4:15 PM	0	0	0	0	0	4	0	33	0	0	118	2	0	28	211	0	396	1,630
4:30 PM	0	0	0	0	0	7	0	32	0	0	114	3	0	31	208	0	395	1,659
4:45 PM	0	0	0	0	0	5	0	42	0	0	105	2	0	31	222	0	407	1,685
5:00 PM	0	0	0	0	0	2	0	40	0	0	138	2	0	37	213	0	432	1,677
5:15 PM	0	0	0	0	0	7	0	38	0	0	134	4	0	27	215	0	425	
5:30 PM	0	0	0	0	0	7	0	48	0	0	140	2	0	30	194	0	421	
5:45 PM	0	0	0	0	0	2	0	50	0	0	104	1	1	32	209	0	399	
Count Total	0	0	0	0	0	37	0	321	0	0	966	20	1	259	1,684	0	3,288	
Peak Hour	0	0	0	0	0	21	0	168	0	0	517	10	0	125	844	0	1,685	

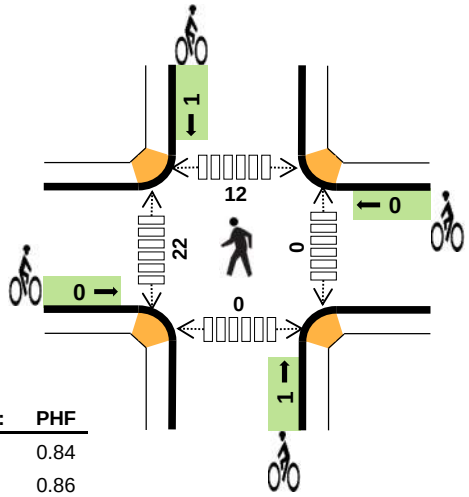
Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	7	1	5	13	4:00 PM	0	0	0	0	0	4:00 PM	1	8	0	0	9
4:15 PM	0	2	1	4	7	4:15 PM	0	1	0	0	1	4:15 PM	0	6	3	0	9
4:30 PM	0	6	0	2	8	4:30 PM	0	0	0	0	0	4:30 PM	4	5	1	0	10
4:45 PM	0	1	0	4	5	4:45 PM	0	0	0	0	0	4:45 PM	3	9	1	0	13
5:00 PM	0	4	0	2	6	5:00 PM	0	0	0	0	0	5:00 PM	3	10	3	0	16
5:15 PM	0	3	0	3	6	5:15 PM	0	0	0	0	0	5:15 PM	3	10	9	0	22
5:30 PM	0	3	0	1	4	5:30 PM	0	0	0	0	0	5:30 PM	6	15	7	0	28
5:45 PM	0	2	0	2	4	5:45 PM	0	0	0	1	1	5:45 PM	1	7	7	0	15
Count Total	0	28	2	23	53	Count Total	0	1	0	1	2	Count Total	21	70	31	0	122
Peak Hour	0	11	0	10	21	Peak Hour	0	0	0	0	0	Peak Hour	15	44	20	0	79

164th Ave NE
NE 85th St



Date: Wed, Oct 11, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.0%	0.84
WB	0.0%	0.86
NB	0.6%	0.87
SB	1.2%	0.95
TOTAL	0.5%	0.95

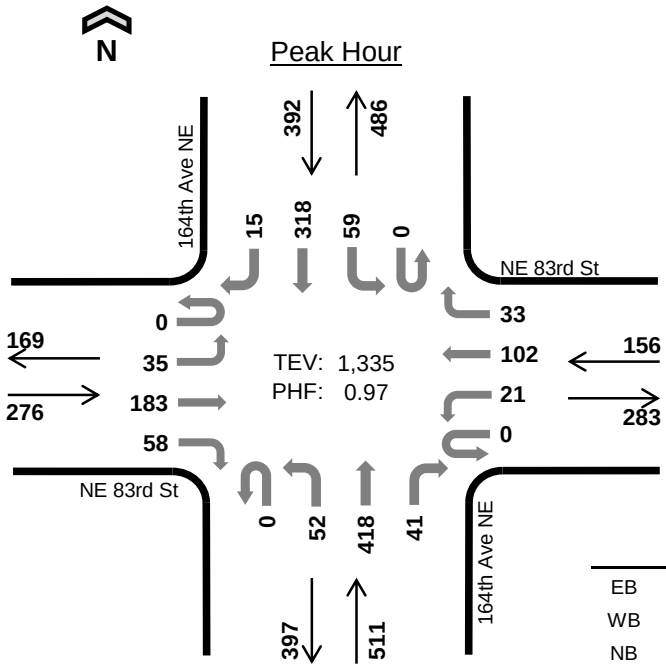
Two-Hour Count Summaries

Interval Start	NE 85th St Eastbound				NE 85th St Westbound				164th Ave NE Northbound				164th Ave NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	18	68	19	0	2	42	36	0	7	111	2	0	40	98	6	449	0
4:15 PM	0	12	66	11	0	3	63	19	0	11	90	1	0	27	75	14	392	0
4:30 PM	0	10	73	20	0	2	37	30	0	12	101	3	0	41	88	9	426	0
4:45 PM	0	17	61	18	0	4	53	36	0	11	85	2	0	31	77	5	400	1,667
5:00 PM	**0**	**16**	**100**	**15**	**0**	**4**	**36**	**44**	**0**	**8**	**105**	**4**	**0**	**34**	**78**	**6**	**450**	1,668
5:15 PM	**0**	**8**	**71**	**13**	**0**	**0**	**59**	**40**	**0**	**7**	**125**	**6**	**0**	**44**	**83**	**6**	**462**	1,738
5:30 PM	**0**	**21**	**71**	**20**	**0**	**1**	**40**	**40**	**0**	**6**	**102**	**2**	**0**	**34**	**78**	**9**	**424**	1,736
5:45 PM	**0**	**16**	**76**	**12**	**0**	**2**	**47**	**26**	**0**	**3**	**105**	**5**	**0**	**36**	**86**	**10**	**424**	**1,760**
Count Total	0	118	586	128	0	18	377	271	0	65	824	25	0	287	663	65	3,427	0
Peak Hour	**0**	**61**	**318**	**60**	**0**	**7**	**182**	**150**	**0**	**24**	**437**	**17**	**0**	**148**	**325**	**31**	**1,760**	**0**

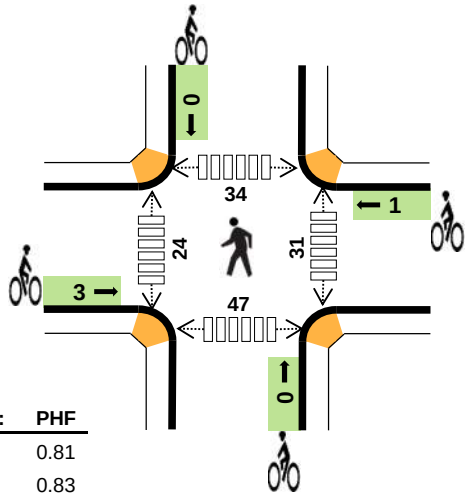
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	2	*3*	1	0	0	0	*1*	0	5	6	0	*11*
4:15 PM	0	0	2	0	*2*	0	1	1	0	*2*	5	2	9	1	*17*
4:30 PM	1	0	3	2	*6*	0	0	0	0	*0*	0	4	5	0	*9*
4:45 PM	0	0	1	1	*2*	0	0	1	0	*1*	0	5	2	0	*7*
5:00 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**6**	**0**	*9*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**5**	**2**	**0**	*7*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**11**	**3**	**0**	*14*
5:45 PM	**0**	**0**	**1**	**5**	***6***	**0**	**0**	**1**	**1**	***2***	**0**	**3**	**1**	**0**	***4***
Count Total	1	0	10	11	*22*	1	1	3	1	*6*	5	38	34	1	*78*
Peak Hour	**0**	**0**	**3**	**6**	***9***	**0**	**0**	**1**	**1**	***2***	**0**	**22**	**12**	**0**	***34***

164th Ave NE
NE 83rd St



Date: Wed, Oct 11, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	4.7%	0.81
WB	1.3%	0.83
NB	2.9%	0.88
SB	1.0%	0.96
TOTAL	2.5%	0.97

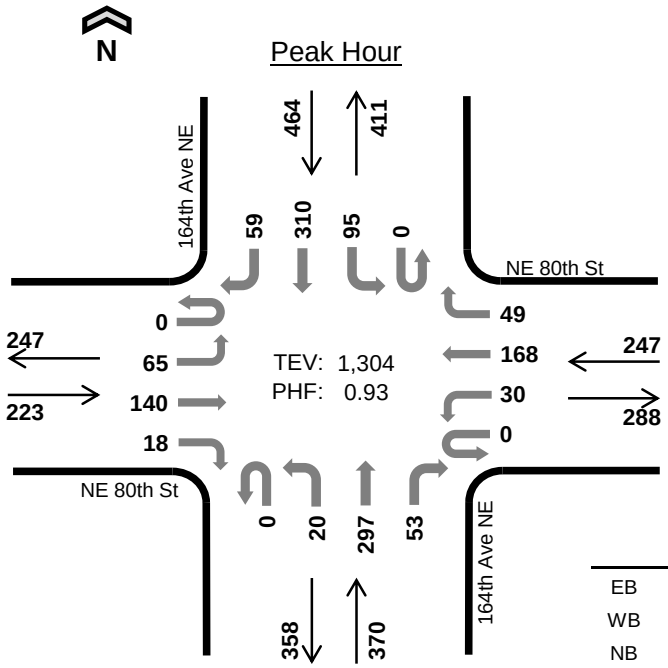
Two-Hour Count Summaries

Interval Start	NE 83rd St Eastbound				NE 83rd St Westbound				164th Ave NE Northbound				164th Ave NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	4	31	22	0	6	20	11	0	7	103	4	0	17	99	6	330	0
4:15 PM	0	8	32	10	0	4	22	8	0	18	91	3	0	11	70	3	280	0
4:30 PM	0	8	41	17	0	4	21	9	0	9	97	5	0	16	91	4	322	0
4:45 PM	0	7	46	16	0	4	25	9	0	14	80	11	0	13	77	3	305	1,237
5:00 PM	**0**	**13**	**56**	**16**	**0**	**5**	**21**	**12**	**0**	**11**	**95**	**9**	**0**	**9**	**82**	**4**	**333**	1,240
5:15 PM	**0**	**5**	**43**	**10**	**0**	**4**	**20**	**4**	**0**	**9**	**124**	**12**	**0**	**13**	**80**	**2**	**326**	1,286
5:30 PM	**0**	**10**	**42**	**21**	**0**	**6**	**30**	**7**	**0**	**17**	**98**	**11**	**0**	**23**	**72**	**7**	**344**	1,308
5:45 PM	**0**	**7**	**42**	**11**	**0**	**6**	**31**	**10**	**0**	**15**	**101**	**9**	**0**	**14**	**84**	**2**	**332**	**1,335**
Count Total	0	62	333	123	0	39	190	70	0	100	789	64	0	116	655	31	2,572	0
Peak Hour	**0**	**35**	**183**	**58**	**0**	**21**	**102**	**33**	**0**	**52**	**418**	**41**	**0**	**59**	**318**	**15**	**1,335**	**0**

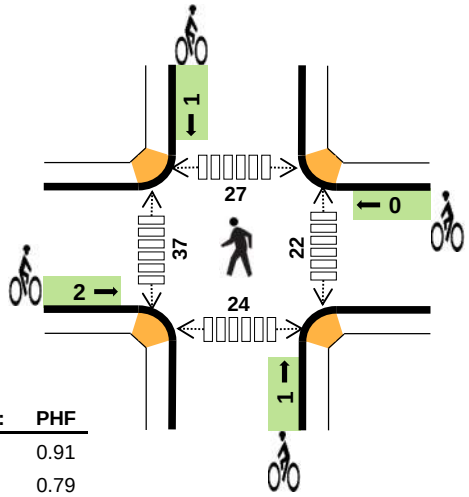
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	3	2	*7*	0	0	0	0	*0*	9	4	13	5	*31*
4:15 PM	3	3	4	0	*10*	0	0	0	0	*0*	3	3	4	9	*19*
4:30 PM	3	1	2	3	*9*	0	0	0	0	*0*	3	4	1	7	*15*
4:45 PM	4	0	3	1	*8*	0	0	1	0	*1*	3	6	4	11	*24*
5:00 PM	**4**	**1**	**5**	**1**	***11***	**2**	**0**	**0**	**0**	***2***	**6**	**2**	**8**	**17**	*33*
5:15 PM	**3**	**0**	**3**	**0**	***6***	**1**	**0**	**0**	**0**	***1***	**9**	**5**	**8**	**8**	*30*
5:30 PM	**4**	**1**	**3**	**0**	***8***	**0**	**1**	**0**	**0**	***1***	**7**	**12**	**7**	**13**	*39*
5:45 PM	**2**	**0**	**4**	**3**	***9***	**0**	**0**	**0**	**0**	***0***	**9**	**5**	**11**	**9**	***34***
Count Total	25	6	27	10	*68*	3	1	1	0	*5*	49	41	56	79	*225*
Peak Hour	**13**	**2**	**15**	**4**	***34***	**3**	**1**	**0**	**0**	***4***	**31**	**24**	**34**	**47**	***136***

164th Ave NE
NE 80th St



Date: Thu, Oct 12, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	1.3%	0.91
WB	0.8%	0.79
NB	3.0%	0.92
SB	3.2%	0.90
TOTAL	2.4%	0.93

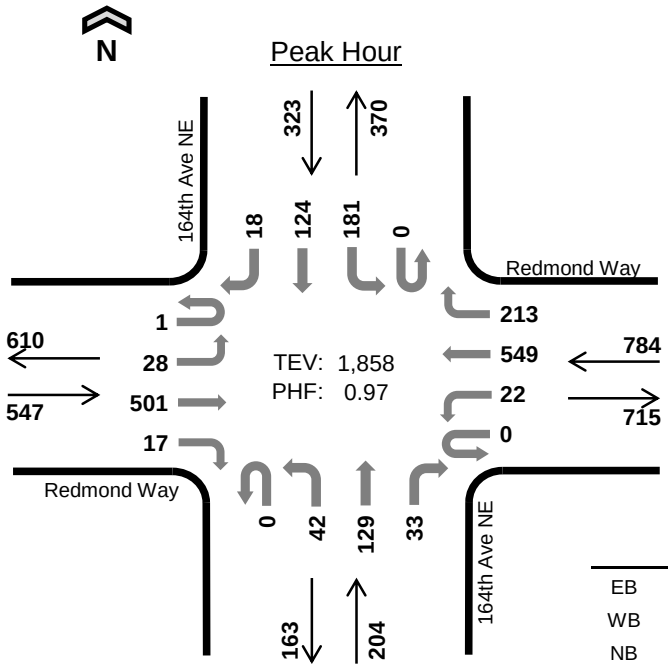
Two-Hour Count Summaries

Interval Start	NE 80th St Eastbound				NE 80th St Westbound				164th Ave NE Northbound				164th Ave NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**20**	**27**	**6**	**0**	**11**	**53**	**14**	**0**	**9**	**70**	**11**	**0**	**22**	**88**	**19**	**350**	0
4:15 PM	**0**	**18**	**39**	**4**	**0**	**7**	**36**	**14**	**0**	**5**	**64**	**17**	**0**	**28**	**86**	**11**	**329**	0
4:30 PM	**0**	**11**	**43**	**5**	**0**	**7**	**35**	**10**	**0**	**2**	**78**	**13**	**0**	**20**	**70**	**18**	**312**	0
4:45 PM	**0**	**16**	**31**	**3**	**0**	**5**	**44**	**11**	**0**	**4**	**85**	**12**	**0**	**25**	**66**	**11**	**313**	**1,304**
5:00 PM	0	18	41	6	0	5	27	14	0	2	95	13	0	26	76	11	334	1,288
5:15 PM	0	21	50	5	0	6	27	22	0	6	64	15	0	26	56	5	303	1,262
5:30 PM	0	19	33	4	0	6	36	10	0	4	82	7	0	23	81	13	318	1,268
5:45 PM	0	14	49	3	0	7	35	23	0	3	69	14	0	27	63	11	318	1,273
Count Total	0	137	313	36	0	54	293	118	0	35	607	102	0	197	586	99	2,577	0
Peak Hour	**0**	**65**	**140**	**18**	**0**	**30**	**168**	**49**	**0**	**20**	**297**	**53**	**0**	**95**	**310**	**59**	**1,304**	**0**

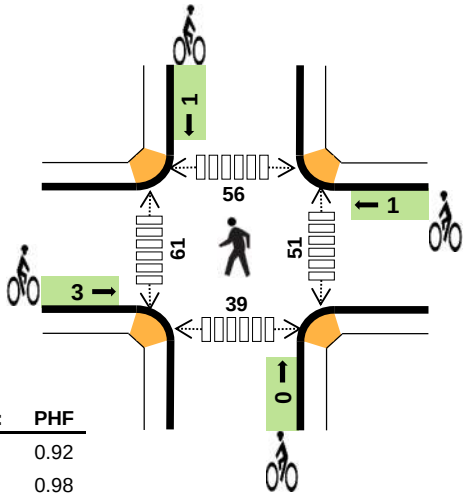
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**1**	**1**	**4**	**3**	***9***	**1**	**0**	**0**	**1**	***2***	**5**	**7**	**17**	**1**	*30*
4:15 PM	**0**	**1**	**2**	**4**	***7***	**0**	**0**	**0**	**0**	***0***	**5**	**7**	**5**	**8**	*25*
4:30 PM	**1**	**0**	**3**	**5**	***9***	**0**	**0**	**0**	**0**	***0***	**7**	**8**	**4**	**10**	*29*
4:45 PM	**1**	**0**	**2**	**3**	***6***	**1**	**0**	**1**	**0**	***2***	**5**	**15**	**1**	**5**	***26***
5:00 PM	1	0	5	4	*10*	0	0	0	0	*0*	9	20	5	6	*40*
5:15 PM	0	1	3	4	*8*	1	0	0	0	*1*	4	7	7	6	*24*
5:30 PM	1	0	2	4	*7*	0	2	0	2	*4*	9	11	2	8	*30*
5:45 PM	0	1	4	2	*7*	1	1	0	0	*2*	10	7	7	6	*30*
Count Total	5	4	25	29	*63*	4	3	1	3	*11*	54	82	48	50	*234*
Peak Hour	**3**	**2**	**11**	**15**	***31***	**2**	**0**	**1**	**1**	***4***	**22**	**37**	**27**	**24**	***110***

164th Ave NE
Redmond Way



Date: Thu, Oct 12, 2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	2.2%	0.92
WB	2.6%	0.98
NB	0.5%	0.94
SB	5.0%	0.86
TOTAL	2.6%	0.97

Two-Hour Count Summaries

Interval Start	Redmond Way Eastbound				Redmond Way Westbound				164th Ave NE Northbound				164th Ave NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**8**	**115**	**5**	**0**	**6**	**143**	**47**	**0**	**10**	**27**	**9**	**0**	**48**	**43**	**3**	**464**	0
4:15 PM	**0**	**4**	**127**	**4**	**0**	**7**	**136**	**54**	**0**	**11**	**35**	**7**	**0**	**50**	**37**	**7**	**479**	0
4:30 PM	**0**	**6**	**128**	**2**	**0**	**6**	**132**	**54**	**0**	**11**	**31**	**9**	**0**	**37**	**28**	**4**	**448**	0
4:45 PM	**1**	**10**	**131**	**6**	**0**	**3**	**138**	**58**	**0**	**10**	**36**	**8**	**0**	**46**	**16**	**4**	**467**	**1,858**
5:00 PM	0	10	99	3	0	7	125	57	0	13	41	7	0	47	33	5	447	1,841
5:15 PM	0	11	119	2	0	5	123	33	0	9	38	11	0	31	25	6	413	1,775
5:30 PM	0	10	105	10	0	6	141	44	0	7	42	6	0	39	34	8	452	1,779
5:45 PM	0	8	115	4	0	4	121	57	0	11	28	10	0	36	34	2	430	1,742
Count Total	1	67	939	36	0	44	1,059	404	0	82	278	67	0	334	250	39	3,600	0
Peak Hour	**1**	**28**	**501**	**17**	**0**	**22**	**549**	**213**	**0**	**42**	**129**	**33**	**0**	**181**	**124**	**18**	**1,858**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**2**	**7**	**0**	**4**	***13***	**0**	**1**	**0**	**1**	***2***	**11**	**12**	**12**	**3**	*38*
4:15 PM	**4**	**6**	**0**	**5**	***15***	**1**	**0**	**0**	**0**	***1***	**13**	**5**	**17**	**5**	*40*
4:30 PM	**2**	**4**	**0**	**5**	***11***	**1**	**0**	**0**	**0**	***1***	**20**	**31**	**15**	**26**	*92*
4:45 PM	**4**	**3**	**1**	**2**	***10***	**1**	**0**	**0**	**0**	***1***	**7**	**13**	**12**	**5**	***37***
5:00 PM	0	8	0	5	*13*	0	0	0	0	*0*	13	9	15	2	*39*
5:15 PM	1	2	2	3	*8*	1	0	0	0	*1*	12	6	10	5	*33*
5:30 PM	1	3	0	5	*9*	0	0	0	0	*0*	7	10	9	0	*26*
5:45 PM	2	5	0	2	*9*	0	0	0	0	*0*	7	4	22	0	*33*
Count Total	16	38	3	31	*88*	4	1	0	1	*6*	90	90	112	46	*338*
Peak Hour	**12**	**20**	**1**	**16**	***49***	**3**	**1**	**0**	**1**	***5***	**51**	**61**	**56**	**39**	***207***

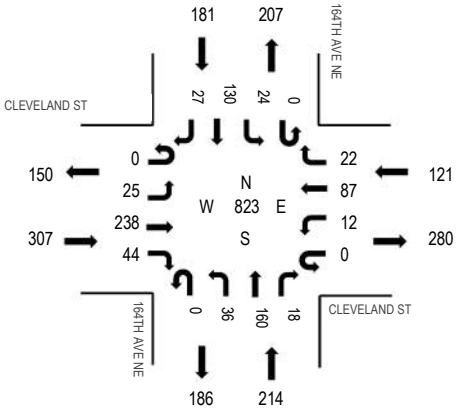
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

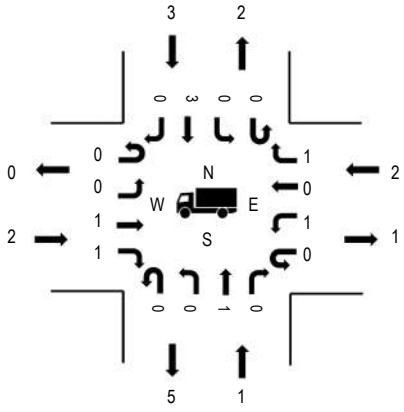
Location: 164TH AVE NE & CLEVELAND ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

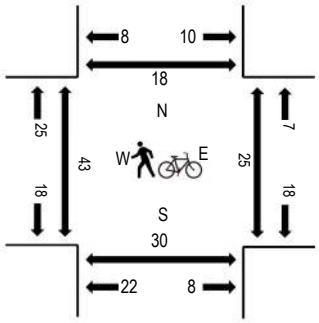
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.7%	0.91
WB	1.7%	0.92
NB	0.5%	0.86
SB	1.7%	0.87
All	1.0%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	CLEVELAND ST Eastbound				CLEVELAND ST Westbound				164TH AVE NE Northbound				164TH AVE NE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	10	25	13	0	5	17	2	0	13	47	11	0	4	26	5	178	801
4:15 PM	0	5	56	17	0	3	21	5	0	10	40	7	0	8	40	4	216	823
4:30 PM	0	6	50	12	0	1	21	8	0	3	39	3	0	6	26	10	185	788
4:45 PM	0	4	69	4	0	6	25	2	0	14	42	6	0	8	33	9	222	803
5:00 PM	0	10	63	11	0	2	20	7	0	9	39	2	0	2	31	4	200	760
5:15 PM	0	4	49	10	0	5	30	0	0	6	43	6	0	4	21	3	181	
5:30 PM	0	2	67	9	0	2	24	0	0	7	46	8	0	2	30	3	200	
5:45 PM	0	5	50	11	0	2	16	4	0	6	40	4	0	2	35	4	179	
Count Total	0	46	429	87	0	26	174	28	0	68	336	47	0	36	242	42	1,561	
Peak Hour	0	25	238	44	0	12	87	22	0	36	160	18	0	24	130	27	823	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	0	1	2	4:00 PM	0	1	0	0	1	4:00 PM	13	2	4	3	22
4:15 PM	1	0	1	0	2	4:15 PM	1	0	0	0	1	4:15 PM	12	4	3	2	21
4:30 PM	1	1	0	2	4	4:30 PM	0	0	0	0	0	4:30 PM	6	5	5	3	19
4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0	4:45 PM	13	12	11	7	43
5:00 PM	0	0	0	1	1	5:00 PM	0	1	0	0	1	5:00 PM	12	9	6	6	33
5:15 PM	0	0	1	0	1	5:15 PM	0	0	0	0	0	5:15 PM	25	4	1	12	42
5:30 PM	0	0	0	2	2	5:30 PM	1	2	1	0	4	5:30 PM	12	8	6	8	34
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	7	0	0	4	11
Count Total	3	1	3	6	13	Count Total	2	4	1	0	7	Count Total	100	44	36	45	225
Peak Hour	2	1	2	3	8	Peak Hour	1	1	0	0	2	Peak Hour	43	30	25	18	116

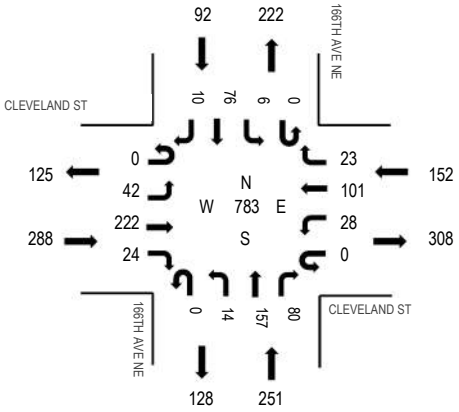
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

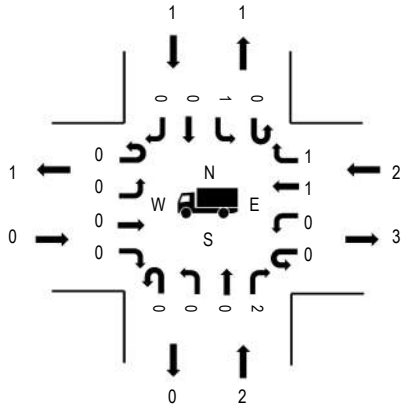
Location: 166TH AVE NE & CLEVELAND ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

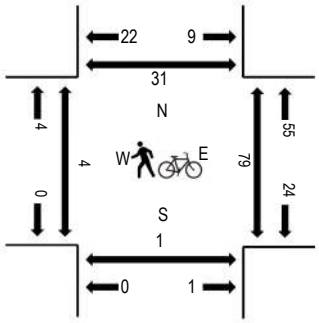
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.0%	0.89
WB	1.3%	0.86
NB	0.8%	0.83
SB	1.1%	0.79
All	0.6%	0.95

Traffic Counts - Motorized Vehicles

Interval Start Time	CLEVELAND ST Eastbound				CLEVELAND ST Westbound				166TH AVE NE Northbound				166TH AVE NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	4	30	4	0	8	16	7	0	2	40	17	0	2	21	6	157	695
4:15 PM	0	3	62	5	0	0	19	2	0	2	36	12	0	5	21	0	167	738
4:30 PM	0	5	44	2	0	6	25	5	0	3	37	12	0	2	17	8	166	759
4:45 PM	0	10	64	7	0	5	26	5	0	4	35	20	0	1	26	2	205	783
5:00 PM	0	6	61	2	0	5	21	6	0	8	48	20	0	0	19	4	200	760
5:15 PM	0	11	45	8	0	6	28	6	0	2	40	18	0	4	17	3	188	
5:30 PM	0	15	52	7	0	12	26	6	0	0	34	22	0	1	14	1	190	
5:45 PM	0	10	41	7	0	12	17	6	0	5	43	12	0	6	21	2	182	
Count Total	0	64	399	42	0	54	178	43	0	26	313	133	0	21	156	26	1,455	
Peak Hour	0	42	222	24	0	28	101	23	0	14	157	80	0	6	76	10	783	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	2	0	0	2	4:00 PM	0	0	0	0	0	4:00 PM	1	0	15	4	20
4:15 PM	0	0	0	0	0	4:15 PM	1	0	0	0	1	4:15 PM	1	0	11	2	14
4:30 PM	1	0	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	19	5	24
4:45 PM	0	1	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	17	4	21
5:00 PM	0	0	0	0	0	5:00 PM	1	0	0	0	1	5:00 PM	1	1	24	7	33
5:15 PM	0	1	1	1	3	5:15 PM	0	1	0	0	1	5:15 PM	2	0	16	7	25
5:30 PM	0	0	1	0	1	5:30 PM	1	0	0	0	1	5:30 PM	1	0	22	13	36
5:45 PM	0	0	1	0	1	5:45 PM	0	0	0	0	0	5:45 PM	1	0	16	9	26
Count Total	1	4	3	1	9	Count Total	3	1	0	0	4	Count Total	7	1	140	51	199
Peak Hour	0	2	2	1	5	Peak Hour	2	1	0	0	3	Peak Hour	4	1	79	31	115

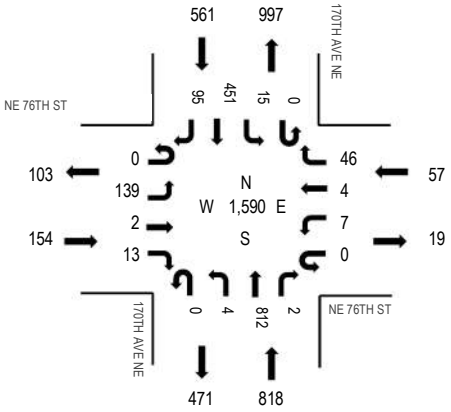
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

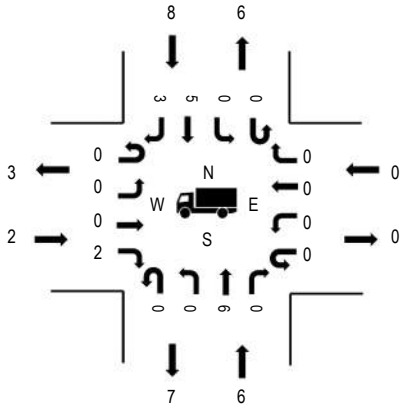
Location: 170TH AVE NE & NE 76TH ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

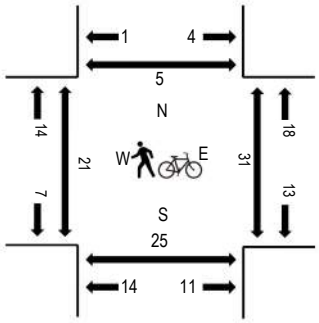
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.3%	0.94
WB	0.0%	0.68
NB	0.7%	0.90
SB	1.4%	0.78
All	1.0%	0.96

Traffic Counts - Motorized Vehicles

Interval Start Time	NE 76TH ST Eastbound				NE 76TH ST Westbound				170TH AVE NE Northbound				170TH AVE NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	32	0	2	0	1	0	6	0	2	206	0	0	3	93	24	369	1,568
4:15 PM	0	35	0	5	0	0	3	12	0	1	179	0	0	3	145	32	415	1,590
4:30 PM	0	33	1	7	0	1	0	8	0	1	226	1	0	5	94	17	394	1,557
4:45 PM	0	32	0	1	0	4	1	16	0	2	205	1	0	4	101	23	390	1,571
5:00 PM	0	39	1	0	0	2	0	10	0	0	202	0	0	3	111	23	391	1,556
5:15 PM	0	43	2	2	0	1	1	8	0	1	190	0	0	5	101	28	382	
5:30 PM	0	53	1	5	0	5	1	6	0	2	183	0	0	7	115	30	408	
5:45 PM	0	35	0	5	0	1	1	10	0	2	181	0	0	8	108	24	375	
Count Total	0	302	5	27	0	15	7	76	0	11	1,572	2	0	38	868	201	3,124	
Peak Hour	0	139	2	13	0	7	4	46	0	4	812	2	0	15	451	95	1,590	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	4	0	1	5	4:00 PM	0	0	0	2	2	4:00 PM	5	5	5	1	16
4:15 PM	1	1	0	2	4	4:15 PM	0	0	0	1	1	4:15 PM	8	2	6	4	20
4:30 PM	1	2	0	2	5	4:30 PM	0	0	0	1	1	4:30 PM	9	8	10	1	28
4:45 PM	0	2	0	2	4	4:45 PM	0	0	0	0	0	4:45 PM	1	4	4	0	9
5:00 PM	0	1	0	2	3	5:00 PM	1	0	0	0	1	5:00 PM	3	11	11	0	25
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	2	3	6	0	11
5:30 PM	0	3	0	1	4	5:30 PM	0	0	0	0	0	5:30 PM	6	7	3	2	18
5:45 PM	0	3	0	0	3	5:45 PM	0	2	0	0	2	5:45 PM	5	0	1	0	6
Count Total	2	16	0	10	28	Count Total	1	2	0	4	7	Count Total	39	40	46	8	133
Peak Hour	2	6	0	8	16	Peak Hour	1	0	0	2	3	Peak Hour	21	25	31	5	82

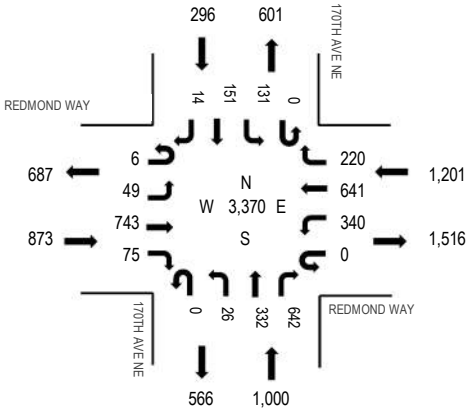
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

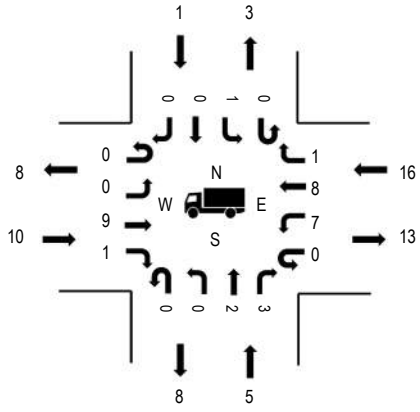
Location: 170TH AVE NE & REDMOND WAY PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

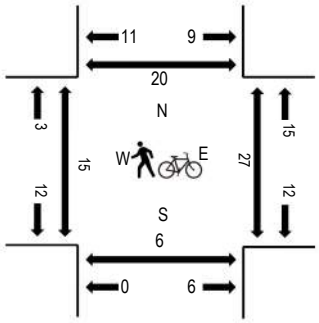
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.1%	0.97
WB	1.3%	0.91
NB	0.5%	0.98
SB	0.3%	0.81
All	0.9%	0.95

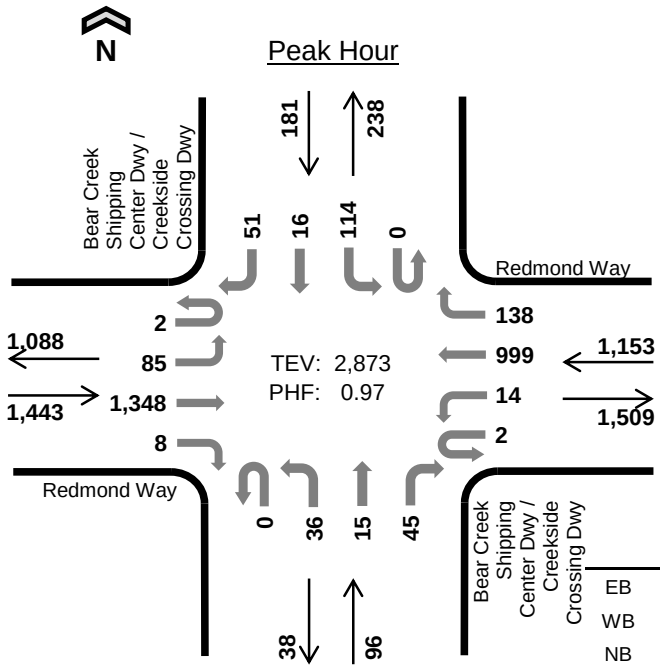
Traffic Counts - Motorized Vehicles

Interval Start Time	REDMOND WAY Eastbound				REDMOND WAY Westbound				170TH AVE NE Northbound				170TH AVE NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	2	9	151	16	0	76	142	50	0	12	79	152	0	44	30	1	764	3,289
4:15 PM	3	11	185	24	0	109	176	46	0	5	81	153	0	40	44	7	884	3,370
4:30 PM	0	9	194	18	0	73	147	62	0	5	84	164	0	28	28	1	813	3,275
4:45 PM	3	13	172	17	0	77	150	63	0	12	81	159	0	36	42	3	828	3,286
5:00 PM	0	16	192	16	0	81	168	49	0	4	86	166	0	27	37	3	845	3,236
5:15 PM	0	11	182	13	0	85	136	51	0	4	82	151	0	37	35	2	789	
5:30 PM	3	9	170	17	0	92	148	59	0	10	68	157	0	39	49	3	824	
5:45 PM	1	10	173	19	0	81	137	43	0	6	74	153	0	33	42	6	778	
Count Total	12	88	1,419	140	0	674	1,204	423	0	58	635	1,255	0	284	307	26	6,525	
Peak Hour	6	49	743	75	0	340	641	220	0	26	332	642	0	131	151	14	3,370	

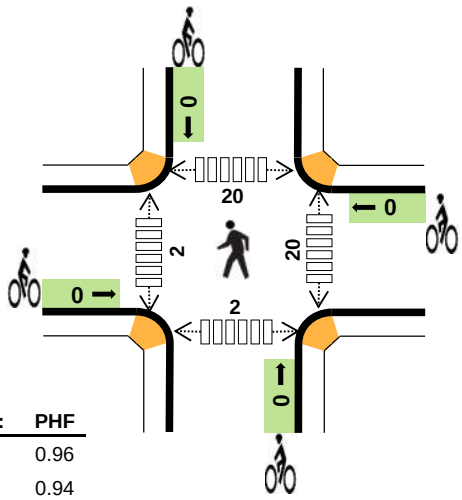
Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	4	5	3	0	12	4:00 PM	0	0	0	0	0	4:00 PM	0	5	3	2	10
4:15 PM	4	1	5	0	10	4:15 PM	0	1	0	1	2	4:15 PM	8	0	7	13	28
4:30 PM	1	2	4	0	7	4:30 PM	0	0	0	0	0	4:30 PM	2	1	7	3	13
4:45 PM	3	2	2	1	8	4:45 PM	0	1	0	0	1	4:45 PM	2	2	5	2	11
5:00 PM	2	0	5	0	7	5:00 PM	0	1	0	0	1	5:00 PM	3	3	8	2	16
5:15 PM	3	0	2	1	6	5:15 PM	0	0	0	0	0	5:15 PM	3	4	8	6	21
5:30 PM	3	3	3	0	9	5:30 PM	0	0	0	0	0	5:30 PM	6	1	5	10	22
5:45 PM	1	3	1	0	5	5:45 PM	0	2	0	0	2	5:45 PM	9	1	4	9	23
Count Total	21	16	25	2	64	Count Total	0	5	0	1	6	Count Total	33	17	47	47	144
Peak Hour	10	5	16	1	32	Peak Hour	0	3	0	1	4	Peak Hour	15	6	27	20	68

Bear Creek Shipping Center Dwy / Redmond Way



Date: Tue, Sep 17, 2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	1.2%	0.96
WB	1.0%	0.94
NB	0.0%	0.96
SB	1.7%	0.89
TOTAL	1.1%	0.97

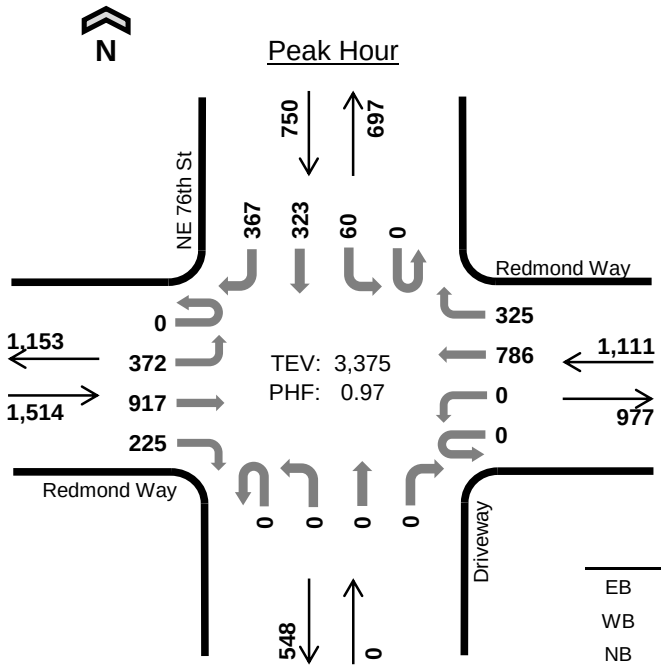
Two-Hour Count Summaries

Interval Start	Redmond Way Eastbound				Redmond Way Westbound				Bear Creek Shipping Center Dwy / Creekside Crossing Dwy Northbound				Bear Creek Shipping Center Dwy / Creekside Crossing Dwy Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	2	23	313	3	0	12	197	30	0	4	11	12	0	27	9	9	652	0
4:15 PM	0	16	291	3	0	8	219	22	0	10	2	18	0	34	6	11	640	0
4:30 PM	**1**	**27**	**339**	**3**	**0**	**3**	**231**	**38**	**0**	**10**	**3**	**11**	**0**	**17**	**6**	**18**	**707**	0
4:45 PM	**1**	**25**	**346**	**3**	**1**	**6**	**262**	**37**	**0**	**7**	**4**	**12**	**0**	**30**	**1**	**9**	**744**	2,743
5:00 PM	**0**	**17**	**338**	**1**	**0**	**2**	**251**	**32**	**0**	**10**	**4**	**10**	**0**	**36**	**3**	**12**	**716**	2,807
5:15 PM	**0**	**16**	**325**	**1**	**1**	**3**	**255**	**31**	**0**	**9**	**4**	**12**	**0**	**31**	**6**	**12**	**706**	**2,873**
5:30 PM	0	10	337	1	0	5	221	41	0	12	5	9	0	30	7	8	686	2,852
5:45 PM	0	20	314	0	0	6	222	26	0	4	5	10	0	29	0	10	646	2,754
Count Total	4	154	2,603	15	2	45	1,858	257	0	66	38	94	0	234	38	89	5,497	0
Peak Hour	**2**	**85**	**1,348**	**8**	**2**	**14**	**999**	**138**	**0**	**36**	**15**	**45**	**0**	**114**	**16**	**51**	**2,873**	**0**

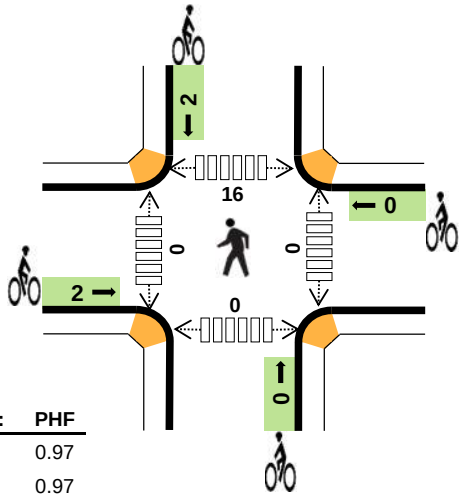
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	5	0	0	*9*	0	0	0	0	*0*	3	1	5	0	*9*
4:15 PM	3	3	0	0	*6*	0	0	0	0	*0*	5	1	6	0	*12*
4:30 PM	**4**	**3**	**0**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**5**	**1**	*11*
4:45 PM	**4**	**2**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**1**	**0**	*2*
5:00 PM	**7**	**5**	**0**	**1**	***13***	**0**	**0**	**0**	**0**	***0***	**6**	**0**	**8**	**0**	*14*
5:15 PM	**2**	**2**	**0**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**8**	**2**	**6**	**1**	***17***
5:30 PM	2	5	0	0	*7*	0	0	0	0	*0*	7	0	8	0	*15*
5:45 PM	6	2	0	0	*8*	0	0	0	0	*0*	2	0	5	0	*7*
Count Total	32	27	0	3	*62*	0	0	0	0	*0*	37	4	44	2	*87*
Peak Hour	**17**	**12**	**0**	**3**	***32***	**0**	**0**	**0**	**0**	***0***	**20**	**2**	**20**	**2**	***44***

NE 76th St
Redmond Way



Date: Tue, Sep 17, 2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	1.2%	0.97
WB	0.4%	0.97
NB	-	-
SB	2.4%	0.93
TOTAL	1.2%	0.97

Two-Hour Count Summaries

Interval Start	Redmond Way Eastbound				Redmond Way Westbound				Driveway Northbound				NE 76th St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	96	200	57	0	0	158	98	0	0	0	0	0	8	81	80	778	0
4:15 PM	0	91	204	47	0	0	171	75	0	0	0	0	0	21	80	85	774	0
4:30 PM	**0**	**93**	**221**	**57**	**0**	**0**	**183**	**103**	**0**	**0**	**0**	**0**	**0**	**12**	**92**	**97**	**858**	0
4:45 PM	**0**	**102**	**238**	**52**	**0**	**0**	**193**	**93**	**0**	**0**	**0**	**0**	**0**	**19**	**79**	**98**	**874**	3,284
5:00 PM	**0**	**87**	**231**	**66**	**0**	**0**	**209**	**71**	**0**	**0**	**0**	**0**	**0**	**14**	**74**	**83**	**835**	3,341
5:15 PM	**0**	**90**	**227**	**50**	**0**	**0**	**201**	**58**	**0**	**0**	**0**	**0**	**0**	**15**	**78**	**89**	**808**	**3,375**
5:30 PM	0	76	256	44	0	0	192	68	0	0	0	0	0	13	65	78	792	3,309
5:45 PM	0	83	221	47	0	0	174	79	0	0	0	0	0	17	72	74	767	3,202
Count Total	0	718	1,798	420	0	0	1,481	645	0	0	0	0	0	119	621	684	6,486	0
Peak Hour	**0**	**372**	**917**	**225**	**0**	**0**	**786**	**325**	**0**	**0**	**0**	**0**	**0**	**60**	**323**	**367**	**3,375**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

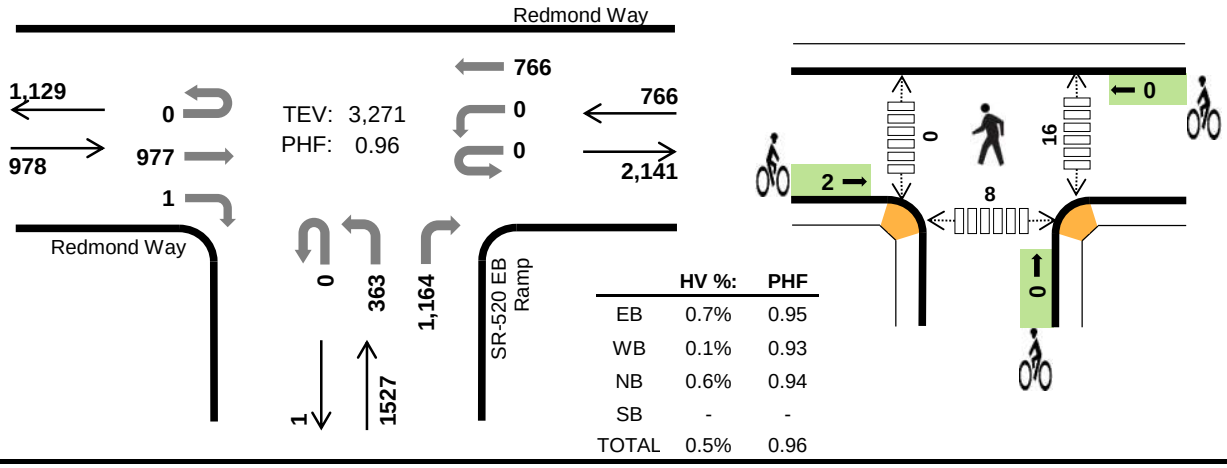
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	1	0	9	*14*	0	0	0	0	*0*	0	0	3	0	*3*
4:15 PM	3	3	0	4	*10*	0	0	0	0	*0*	0	0	5	0	*5*
4:30 PM	**4**	**0**	**0**	**4**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	*2*
4:45 PM	**4**	**1**	**0**	**6**	***11***	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**4**	**0**	*4*
5:00 PM	**8**	**3**	**0**	**3**	***14***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**4**	**0**	*4*
5:15 PM	**2**	**0**	**0**	**5**	***7***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**6**	**0**	***6***
5:30 PM	2	2	0	3	*7*	0	1	0	0	*1*	0	0	4	0	*4*
5:45 PM	6	2	0	3	*11*	0	0	0	0	*0*	0	1	3	0	*4*
Count Total	33	12	0	37	*82*	2	1	0	2	*5*	0	1	31	0	*32*
Peak Hour	**18**	**4**	**0**	**18**	***40***	**2**	**0**	**0**	**2**	***4***	**0**	**0**	**16**	**0**	***16***

SR-520 EB Ramp
Redmond Way

N

Peak Hour

Date: Tue, Sep 17, 2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.7%	0.95
WB	0.1%	0.93
NB	0.6%	0.94
SB	-	-
TOTAL	0.5%	0.96

Two-Hour Count Summaries

Interval Start	Redmond Way Eastbound				Redmond Way Westbound				SR-520 EB Ramp Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	218	0	0	0	142	0	0	109	0	311	0	0	0	0	780	0
4:15 PM	0	0	219	0	0	0	164	0	0	87	0	323	0	0	0	0	793	0
4:30 PM	**0**	**0**	**235**	**0**	**0**	**0**	**189**	**0**	**0**	**109**	**0**	**295**	**0**	**0**	**0**	**0**	**828**	0
4:45 PM	**0**	**0**	**256**	**1**	**0**	**0**	**198**	**0**	**0**	**103**	**0**	**298**	**0**	**0**	**0**	**0**	**856**	3,257
5:00 PM	**0**	**0**	**240**	**0**	**0**	**0**	**206**	**0**	**0**	**79**	**0**	**254**	**0**	**0**	**0**	**0**	**779**	3,256
5:15 PM	**0**	**0**	**246**	**0**	**0**	**0**	**173**	**0**	**0**	**72**	**0**	**317**	**0**	**0**	**0**	**0**	**808**	**3,271**
5:30 PM	0	0	259	0	0	0	181	0	0	74	0	281	0	0	0	0	795	3,238
5:45 PM	0	0	248	0	0	0	163	0	0	85	0	344	0	0	0	0	840	3,222
Count Total	0	0	1,921	1	0	0	1,416	0	0	718	0	2,423	0	0	0	0	6,479	0
Peak Hour	**0**	**0**	**977**	**1**	**0**	**0**	**766**	**0**	**0**	**363**	**0**	**1,164**	**0**	**0**	**0**	**0**	**3,271**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	1	2	0	*4*	0	0	0	0	*0*	1	0	0	0	*1*
4:15 PM	3	2	2	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**2**	*4*
4:45 PM	**0**	**0**	**4**	**0**	***4***	**2**	**0**	**0**	**0**	***2***	**5**	**0**	**0**	**1**	*6*
5:00 PM	**5**	**1**	**5**	**0**	***11***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**3**	*8*
5:15 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**2**	***6***
5:30 PM	0	2	2	0	*4*	0	0	0	0	*0*	4	0	0	4	*8*
5:45 PM	1	0	2	0	*3*	0	0	0	0	*0*	2	0	0	2	*4*
Count Total	12	6	17	0	*35*	2	0	0	0	*2*	23	0	0	14	*37*
Peak Hr	**7**	**1**	**9**	**0**	***17***	**2**	**0**	**0**	**0**	***2***	**16**	**0**	**0**	**8**	***24***

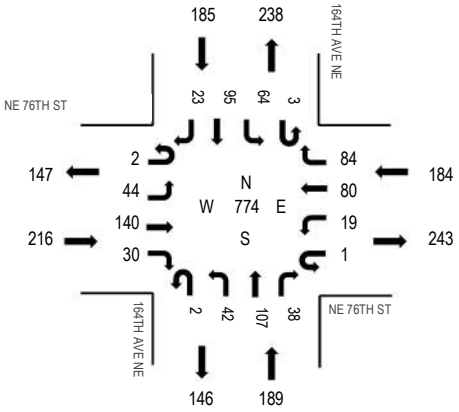
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

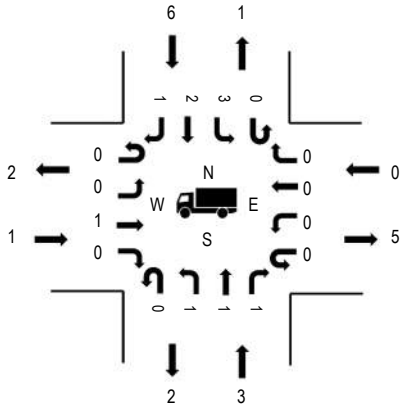
Location: 164TH AVE NE & NE 76TH ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:00 PM - 05:00 PM

Peak Hour

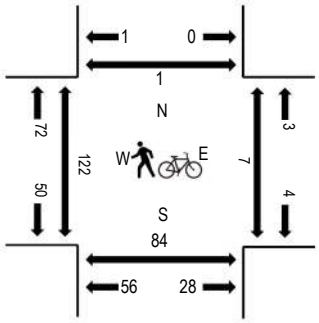
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.5%	0.97
WB	0.0%	0.85
NB	1.6%	0.65
SB	3.2%	0.77
All	1.3%	0.84

Traffic Counts - Motorized Vehicles

Interval Start Time	NE 76TH ST Eastbound				NE 76TH ST Westbound				164TH AVE NE Northbound				164TH AVE NE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	1	11	36	13	0	3	29	22	1	17	38	17	1	11	26	4	230	774
4:15 PM	0	14	38	2	0	8	17	22	1	12	22	5	1	27	27	5	201	749
4:30 PM	0	9	28	9	1	5	19	14	0	8	24	6	1	12	21	6	163	729
4:45 PM	1	10	38	6	0	3	15	26	0	5	23	10	0	14	21	8	180	770
5:00 PM	1	8	42	10	0	3	27	13	1	10	29	18	0	14	21	8	205	774
5:15 PM	1	14	35	10	0	5	22	25	1	10	18	7	0	10	22	1	181	
5:30 PM	0	13	42	6	0	5	24	13	1	12	34	12	0	12	21	9	204	
5:45 PM	1	14	29	11	0	4	26	15	0	7	21	8	1	16	25	6	184	
Count Total	5	93	288	67	1	36	179	150	5	81	209	83	4	116	184	47	1,548	
Peak Hour	2	44	140	30	1	19	80	84	2	42	107	38	3	64	95	23	774	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	2	0	2	4	4:00 PM	1	0	0	1	2	4:00 PM	29	21	3	0	53
4:15 PM	0	0	0	1	1	4:15 PM	0	0	0	0	0	4:15 PM	38	24	3	0	65
4:30 PM	1	1	0	2	4	4:30 PM	0	0	1	0	1	4:30 PM	22	18	0	1	41
4:45 PM	0	0	0	1	1	4:45 PM	0	0	0	0	0	4:45 PM	33	21	1	0	55
5:00 PM	0	0	0	1	1	5:00 PM	1	0	1	0	2	5:00 PM	36	22	0	0	58
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	38	28	1	1	68
5:30 PM	0	0	0	2	2	5:30 PM	0	1	0	0	1	5:30 PM	33	22	2	1	58
5:45 PM	1	0	0	0	1	5:45 PM	0	0	0	1	1	5:45 PM	39	39	0	0	78
Count Total	2	3	0	9	14	Count Total	2	1	2	2	7	Count Total	268	195	10	3	476
Peak Hour	1	3	0	6	10	Peak Hour	1	0	1	1	3	Peak Hour	122	84	7	1	214

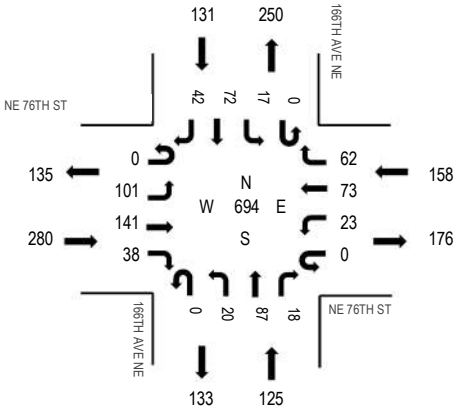
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

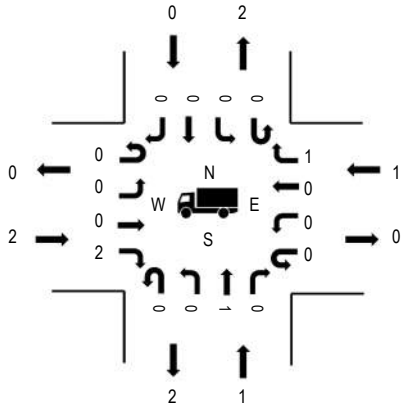
Location: 166TH AVE NE & NE 76TH ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

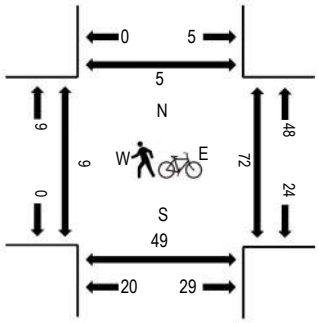
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.7%	0.83
WB	0.6%	0.88
NB	0.8%	0.89
SB	0.0%	0.80
All	0.6%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	NE 76TH ST Eastbound				NE 76TH ST Westbound				166TH AVE NE Northbound				166TH AVE NE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	26	29	6	0	6	24	12	1	13	24	8	0	2	19	11	181	664
4:15 PM	0	21	29	9	0	4	28	15	0	6	15	4	0	8	9	10	158	662
4:30 PM	0	19	25	9	0	4	17	10	0	9	22	4	0	3	12	7	141	664
4:45 PM	0	22	41	6	0	5	22	18	0	6	19	4	0	9	22	10	184	694
5:00 PM	0	34	40	10	0	6	14	17	0	3	26	3	0	1	12	13	179	675
5:15 PM	0	23	27	13	0	3	23	13	0	4	22	3	0	5	17	7	160	
5:30 PM	0	22	33	9	0	9	14	14	0	7	20	8	0	2	21	12	171	
5:45 PM	0	25	26	5	0	6	19	14	0	3	22	7	0	3	22	13	165	
Count Total	0	192	250	67	0	43	161	113	1	51	170	41	0	33	134	83	1,339	
Peak Hour	0	101	141	38	0	23	73	62	0	20	87	18	0	17	72	42	694	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	1	0	0	3	4:00 PM	0	0	0	0	0	4:00 PM	1	13	12	0	26
4:15 PM	1	0	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	1	6	11	0	18
4:30 PM	2	0	0	0	2	4:30 PM	1	0	1	0	2	4:30 PM	8	4	10	8	30
4:45 PM	0	1	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	1	8	17	1	27
5:00 PM	1	0	0	0	1	5:00 PM	1	0	1	0	2	5:00 PM	4	23	21	2	50
5:15 PM	0	0	1	0	1	5:15 PM	0	0	1	0	1	5:15 PM	3	11	15	1	30
5:30 PM	1	0	0	0	1	5:30 PM	0	0	0	0	0	5:30 PM	1	7	19	1	28
5:45 PM	1	0	0	0	1	5:45 PM	0	0	0	0	0	5:45 PM	1	6	16	0	23
Count Total	8	2	1	0	11	Count Total	2	0	3	0	5	Count Total	20	78	121	13	232
Peak Hour	2	1	1	0	4	Peak Hour	1	0	2	0	3	Peak Hour	9	49	72	5	135

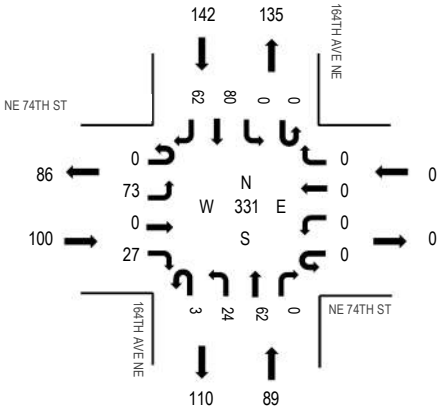
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

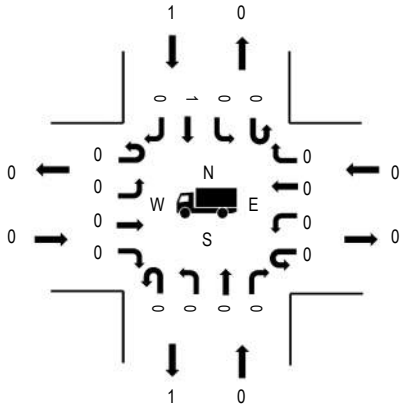
Location: 164TH AVE NE & NE 74TH ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 05:00 PM - 06:00 PM

Peak Hour

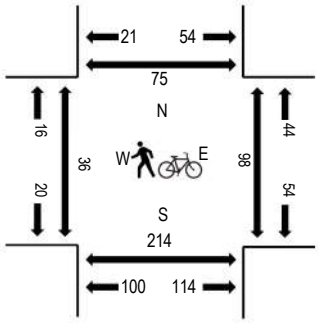
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.0%	0.93
WB	0.0%	0.00
NB	0.0%	0.77
SB	0.7%	0.93
All	0.3%	0.89

Traffic Counts - Motorized Vehicles

Interval Start Time	NE 74TH ST Eastbound				NE 74TH ST Westbound				164TH AVE NE Northbound				164TH AVE NE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	13	0	1	0	0	0	0	1	8	19	0	0	0	25	33	100	304
4:15 PM	0	21	0	5	0	0	0	0	0	2	13	0	0	0	17	11	69	297
4:30 PM	0	13	0	8	0	0	0	0	1	2	13	0	1	0	19	11	68	305
4:45 PM	0	17	0	3	0	0	0	0	1	3	13	0	1	0	16	13	67	311
5:00 PM	0	18	0	8	0	0	0	0	0	9	20	0	0	0	18	20	93	331
5:15 PM	0	14	0	7	0	0	0	0	0	4	14	0	0	0	22	16	77	
5:30 PM	0	24	0	3	0	0	0	0	1	7	10	0	0	0	18	11	74	
5:45 PM	0	17	0	9	0	0	0	0	2	4	18	0	0	0	22	15	87	
Count Total	0	137	0	44	0	0	0	0	6	39	120	0	2	0	157	130	635	
Peak Hour	0	73	0	27	0	0	0	0	3	24	62	0	0	0	80	62	331	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	0	1	3	4:00 PM	0	0	0	0	0	4:00 PM	11	38	26	18	93
4:15 PM	0	0	0	1	1	4:15 PM	1	0	0	0	1	4:15 PM	11	45	22	15	93
4:30 PM	0	1	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	6	37	12	12	67
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	9	48	16	11	84
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	6	57	19	11	93
5:15 PM	0	0	0	0	0	5:15 PM	0	0	1	0	1	5:15 PM	7	69	30	21	127
5:30 PM	0	0	0	1	1	5:30 PM	0	0	1	0	1	5:30 PM	10	35	29	17	91
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	13	53	20	26	112
Count Total	2	1	0	3	6	Count Total	1	0	2	0	3	Count Total	73	382	174	131	760
Peak Hour	0	0	0	1	1	Peak Hour	0	0	2	0	2	Peak Hour	36	214	98	75	423

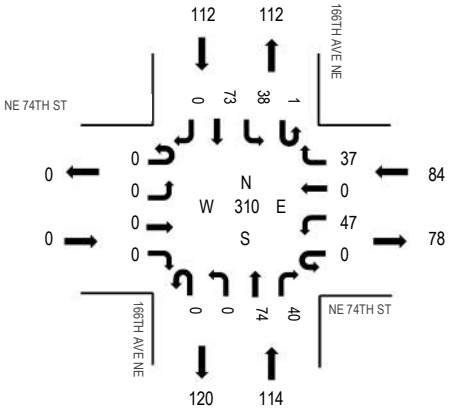
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

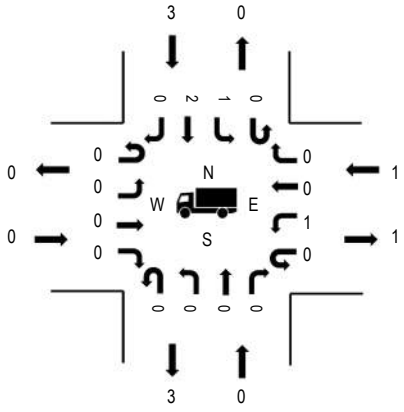
Location: 166TH AVE NE & NE 74TH ST PM
Date: Tuesday, October 15, 2024
Peak Hour: 05:00 PM - 06:00 PM

Peak Hour

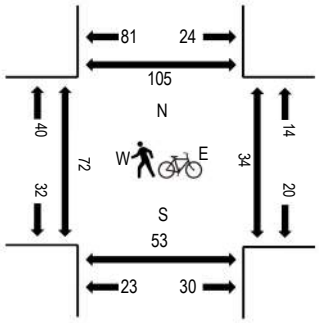
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.0%	0.00
WB	1.2%	0.81
NB	0.0%	0.84
SB	2.7%	0.82
All	1.3%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	NE 74TH ST Eastbound				NE 74TH ST Westbound				166TH AVE NE Northbound				166TH AVE NE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	12	0	16	0	0	25	13	1	5	20	0	92	280
4:15 PM	0	0	0	0	0	7	0	8	0	0	16	13	0	7	9	0	60	258
4:30 PM	0	0	0	0	0	6	0	13	1	0	17	5	0	4	15	0	61	282
4:45 PM	0	0	0	0	0	10	0	13	0	0	15	5	0	3	21	0	67	301
5:00 PM	0	0	0	0	0	11	0	6	0	0	21	8	0	9	15	0	70	310
5:15 PM	0	0	0	0	0	13	0	9	0	0	15	13	0	12	22	0	84	
5:30 PM	0	0	0	0	0	8	0	11	0	0	20	14	1	8	18	0	80	
5:45 PM	0	0	0	0	0	15	0	11	0	0	18	5	0	9	18	0	76	
Count Total	0	0	0	0	0	82	0	87	1	0	147	76	2	57	138	0	590	
Peak Hour	0	0	0	0	0	47	0	37	0	0	74	40	1	38	73	0	310	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	1	3	1	5	4:00 PM	0	0	0	0	0	4:00 PM	13	22	3	20	58
4:15 PM	0	0	0	0	0	4:15 PM	2	0	0	0	2	4:15 PM	22	8	2	34	66
4:30 PM	0	0	0	1	1	4:30 PM	0	0	0	0	0	4:30 PM	21	4	4	16	45
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	14	15	7	27	63
5:00 PM	0	0	0	2	2	5:00 PM	0	0	0	0	0	5:00 PM	20	16	10	20	66
5:15 PM	0	0	1	0	1	5:15 PM	0	0	2	0	2	5:15 PM	17	8	7	24	56
5:30 PM	0	0	0	1	1	5:30 PM	0	0	0	0	0	5:30 PM	22	20	6	35	83
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	13	9	11	26	59
Count Total	0	1	4	5	10	Count Total	2	0	2	0	4	Count Total	142	102	50	202	496
Peak Hour	0	0	1	3	4	Peak Hour	0	0	2	0	2	Peak Hour	72	53	34	105	264

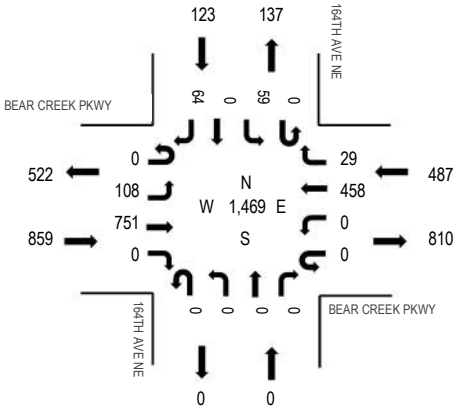
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

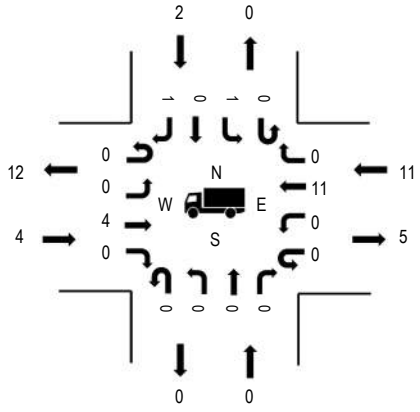
Location: 164TH AVE NE & BEAR CREEK PKWY PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

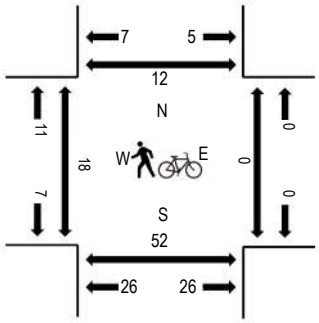
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.5%	0.93
WB	2.3%	0.89
NB	0.0%	0.00
SB	1.6%	0.79
All	1.2%	0.96

Traffic Counts - Motorized Vehicles

Interval Start Time	BEAR CREEK PKWY Eastbound				BEAR CREEK PKWY Westbound				164TH AVE NE Northbound				164TH AVE NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	18	196	0	0	0	100	5	0	0	0	0	0	13	0	24	356	1,396
4:15 PM	0	20	196	0	0	0	105	5	0	0	0	0	0	8	0	8	342	1,424
4:30 PM	0	12	199	0	0	0	95	5	0	0	0	0	0	12	0	24	347	1,454
4:45 PM	0	30	200	0	0	0	87	7	0	0	0	0	0	17	0	10	351	1,469
5:00 PM	0	29	191	0	0	0	119	6	0	0	0	0	0	15	0	24	384	1,449
5:15 PM	0	24	189	0	0	0	126	11	0	0	0	0	0	12	0	10	372	
5:30 PM	0	25	171	0	0	0	126	5	0	0	0	0	0	15	0	20	362	
5:45 PM	0	30	180	0	0	0	77	14	0	0	0	0	0	11	0	19	331	
Count Total	0	188	1,522	0	0	0	835	58	0	0	0	0	0	103	0	139	2,845	
Peak Hour	0	108	751	0	0	0	458	29	0	0	0	0	0	59	0	64	1,469	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	4	0	6	1	11	4:00 PM	0	0	1	0	1	4:00 PM	2	7	0	0	9
4:15 PM	2	0	2	0	4	4:15 PM	0	0	0	0	0	4:15 PM	5	8	0	0	13
4:30 PM	1	0	6	0	7	4:30 PM	0	0	0	0	0	4:30 PM	1	8	0	2	11
4:45 PM	1	0	1	1	3	4:45 PM	0	0	0	0	0	4:45 PM	1	9	0	0	10
5:00 PM	1	0	4	0	5	5:00 PM	0	0	0	0	0	5:00 PM	2	11	0	5	18
5:15 PM	1	0	3	0	4	5:15 PM	0	0	0	0	0	5:15 PM	3	15	0	7	25
5:30 PM	1	0	3	1	5	5:30 PM	0	0	0	0	0	5:30 PM	12	17	0	0	29
5:45 PM	1	0	1	0	2	5:45 PM	1	0	1	0	2	5:45 PM	3	9	0	7	19
Count Total	12	0	26	3	41	Count Total	1	0	2	0	3	Count Total	29	84	0	21	134
Peak Hour	4	0	11	2	17	Peak Hour	0	0	0	0	0	Peak Hour	18	52	0	12	82

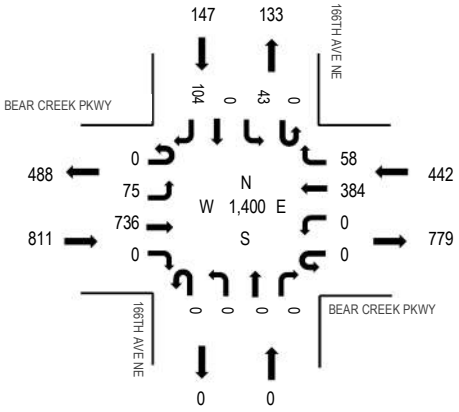
Exhibit E

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

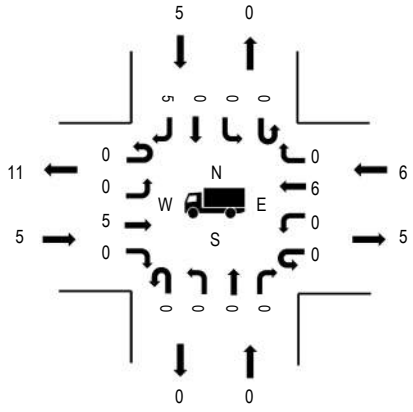
Location: 166TH AVE NE & BEAR CREEK PKWY PM
Date: Tuesday, October 15, 2024
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

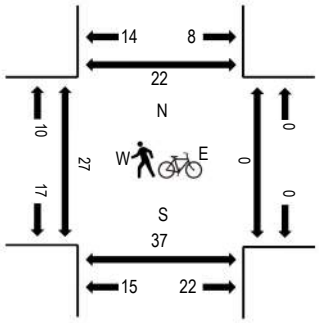
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.6%	0.93
WB	1.4%	0.86
NB	0.0%	0.00
SB	3.4%	0.84
All	1.1%	0.95

Traffic Counts - Motorized Vehicles

Interval Start Time	BEAR CREEK PKWY Eastbound				BEAR CREEK PKWY Westbound				166TH AVE NE Northbound				166TH AVE NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	21	194	0	0	0	84	22	0	0	0	0	0	9	0	22	352	1,359
4:15 PM	0	19	183	0	0	0	87	31	0	0	0	0	0	8	0	21	349	1,354
4:30 PM	0	10	201	0	0	0	78	6	0	0	0	0	0	13	0	22	330	1,372
4:45 PM	0	11	207	0	0	0	74	10	0	0	0	0	0	7	0	19	328	1,400
5:00 PM	0	19	183	0	0	0	97	14	0	0	0	0	0	6	0	28	347	1,388
5:15 PM	0	24	180	0	0	0	108	11	0	0	0	0	0	13	0	31	367	
5:30 PM	0	21	166	0	0	0	105	23	0	0	0	0	0	17	0	26	358	
5:45 PM	0	14	179	0	0	0	72	19	0	0	0	0	0	13	0	19	316	
Count Total	0	139	1,493	0	0	0	705	136	0	0	0	0	0	86	0	188	2,747	
Peak Hour	0	75	736	0	0	0	384	58	0	0	0	0	0	43	0	104	1,400	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	4	0	2	4	10	4:00 PM	0	0	0	0	0	4:00 PM	8	8	0	4	20
4:15 PM	1	0	1	1	3	4:15 PM	0	0	0	0	0	4:15 PM	0	6	0	2	8
4:30 PM	1	0	3	3	7	4:30 PM	0	0	0	0	0	4:30 PM	1	9	0	3	13
4:45 PM	2	0	1	0	3	4:45 PM	0	0	0	0	0	4:45 PM	6	7	0	3	16
5:00 PM	1	0	2	2	5	5:00 PM	0	0	0	0	0	5:00 PM	10	10	0	11	31
5:15 PM	1	0	1	2	4	5:15 PM	0	0	0	0	0	5:15 PM	6	8	0	4	18
5:30 PM	1	0	2	1	4	5:30 PM	0	0	0	0	0	5:30 PM	5	12	0	4	21
5:45 PM	1	0	1	1	3	5:45 PM	1	0	0	0	1	5:45 PM	3	7	0	6	16
Count Total	12	0	13	14	39	Count Total	1	0	0	0	1	Count Total	39	67	0	37	143
Peak Hour	5	0	6	5	16	Peak Hour	0	0	0	0	0	Peak Hour	27	37	0	22	86

Appendix E

Level of Service (LOS) Methodology and Calculations

Level of Service Methodology

Level of Service (LOS) generally refers to the degree of congestion at an intersection. It is a measure of vehicle operating speed, travel time, travel delays, and driving comfort. A letter scale from A to F generally describes intersection LOS.

Signalized Intersection LOS represents the average control delay (sec/veh) and can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for signalized intersections.

LOS Criteria for Signalized Intersections [1]

Control Delay (sec/veh)	Level of Service [2]	General Description [3]
≤ 10	A	Exceptionally Favorable Progression (or very short cycle lengths) – Most vehicles arrive during the green indication and travel through the intersection without stopping.
> 10 to ≤ 20	B	Highly Favorable Progression (or short cycle lengths) – While more vehicles than LOS A stop, most vehicles still pass through the intersection without stopping.
> 20 to ≤ 35	C	Favorable Progression (or moderate cycle lengths) – Individual cycle failures begin to appear, but many vehicles still pass through the intersection without stopping.
> 35 to ≤ 55	D	Ineffective Progression (or long cycle lengths) – Many vehicles stop and individual cycle failures are noticeable.
> 55 to ≤ 80	E	Unfavorable Progression (and long cycle lengths) – Individual cycle failures are frequent.
> 80	F	Very Poor Progression (and long cycle lengths) – Most cycles fail to clear the queue at this level.

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2022.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at signals, LOS is defined solely by control delay.
3 Individual cycle failures: one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle.

Synchro 12 and/or HCM 2000 LOS methodology may be used when HCM 7th Edition methodology is not supported at an intersection (i.e., intersection geometry and/or custom phasing) or jurisdictional standards require use of an alternative methodology.

Unsignalized Intersection LOS (two-way stop control, all-way stop control, and roundabouts) is based on the average control delay. For two-way stop-controlled intersections, the LOS criteria apply to each controlled minor-street approach, controlled minor-street lane group, and controlled major-street movement (additional v/c ratio criteria apply to lane group LOS only). LOS is not calculated for major-street approaches or for the intersection as a whole at two-way stop-controlled intersections. For all-way stop-controlled intersections and roundabouts, LOS can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for unsignalized intersections based on these methodologies.

Note: LOS reported for WSDOT roundabouts use signalized intersection delay criteria, per *WSDOT Sidra Policy Settings*.

LOS Criteria for Unsignalized Intersections[1]

Control Delay (sec/veh)	Level of Service [2]
≤ 10	A
> 10 to ≤ 15	B
> 15 to ≤ 25	C
> 25 to ≤ 35	D
> 35 to ≤ 50	E
> 50	F

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2022.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at unsignalized intersections, LOS is defined solely by control delay.

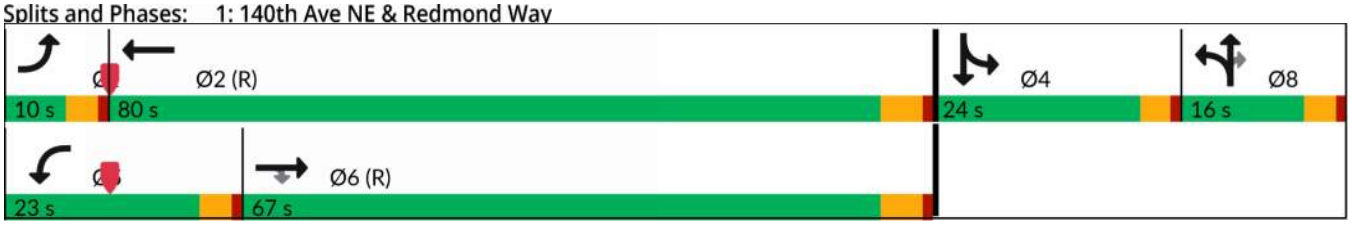
2025 Existing

Lanes, Volumes, Timings
1: 140th Ave NE & Redmond Way 03/21/2025

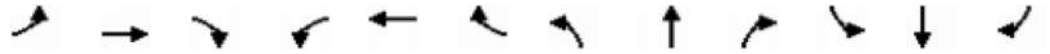
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1100	98	139	1426	6	74	9	47	15	7	20
Future Volume (vph)	29	1100	98	139	1426	6	74	9	47	15	7	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			4%			0%			7%	
Storage Length (ft)	125		250	250		0	0		200	0		30
Storage Lanes	1		1	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			35			25	
Link Distance (ft)		535			1832			797			317	
Travel Time (s)		9.1			31.2			15.5			8.6	
Confl. Peds. (#/hr)	8		2	2		8	11					11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6						8			
Detector Phase	1	6	6	5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0		9.0	9.0	9.0	24.0	24.0	
Total Split (s)	10.0	67.0	67.0	23.0	80.0		16.0	16.0	16.0	24.0	24.0	
Total Split (%)	7.7%	51.5%	51.5%	17.7%	61.5%		12.3%	12.3%	12.3%	18.5%	18.5%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0			4.0	4.0		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	

Intersection Summary
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: 140th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
1: 140th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1100	98	139	1426	6	74	9	47	15	7	20
Future Volume (veh/h)	29	1100	98	139	1426	6	74	9	47	15	7	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1791	1791	1791	1900	1900	1900	1611	1611	1611
Adj Flow Rate, veh/h	32	1196	0	151	1550	7	80	10	0	16	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	50	2500		177	2551	12	101	13		48	24	
Arrive On Green	0.03	0.66	0.00	0.10	0.73	0.73	0.06	0.06	0.00	0.05	0.05	0.00
Sat Flow, veh/h	1908	3806	1697	1706	3474	16	1617	202	1610	1040	520	0
Grp Volume(v), veh/h	32	1196	0	151	759	798	90	0	0	24	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1697	1706	1701	1788	1819	0	1610	1559	0	0
Q Serve(g_s), s	2.2	20.4	0.0	11.3	27.8	27.9	6.3	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	2.2	20.4	0.0	11.3	27.8	27.9	6.3	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.89		1.00	0.67		0.00
Lane Grp Cap(c), veh/h	50	2500		177	1249	1313	113	0		72	0	
V/C Ratio(X)	0.64	0.48		0.85	0.61	0.61	0.80	0.00		0.33	0.00	
Avail Cap(c_a), veh/h	88	2500		249	1249	1313	168	0		240	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.7	11.2	0.0	57.3	8.3	8.3	60.1	0.0	0.0	60.0	0.0	0.0
Incr Delay (d2), s/veh	12.6	0.7	0.0	17.9	2.2	2.1	14.5	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.1	0.0	5.7	9.4	9.8	3.4	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.3	11.8	0.0	75.2	10.5	10.4	74.7	0.0	0.0	62.0	0.0	0.0
LnGrp LOS	E	B		E	B	B	E			E		
Approach Vol, veh/h		1228			1708			90			24	
Approach Delay, s/veh		13.5			16.2			74.7			62.0	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	100.5		10.0	17.5	90.4		12.1				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	75.0		20.0	19.0	62.0		12.0				
Max Q Clear Time (g_c+I1), s	4.2	29.9		3.9	13.3	22.4		8.3				
Green Ext Time (p_c), s	0.0	24.2		0.0	0.2	16.3		0.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.2
HCM 7th LOS	B

Notes

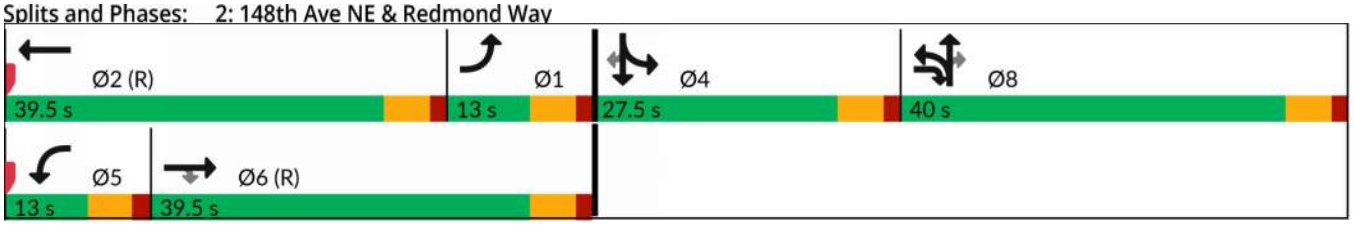
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
2: 148th Ave NE & Redmond Way 03/21/2025

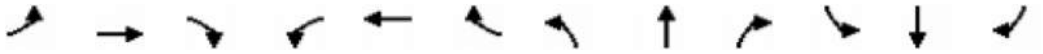
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	812	167	158	777	10	593	588	344	30	358	252
Future Volume (vph)	162	812	167	158	777	10	593	588	344	30	358	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-3%			3%	
Storage Length (ft)	375		150	250		0	275		200	200		250
Storage Lanes	2		1	2		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		957			1580			2623			1894	
Travel Time (s)		16.3			26.9			44.7			32.3	
Confl. Peds. (#/hr)	4		4	4		4			9	9		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)							35%					
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	1	6	8	5	2		8	8		4	4	
Permitted Phases			6						8			4
Detector Phase	1	6	8	5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	27.5	24.5	10.5	25.5		24.5	24.5	24.5	27.5	27.5	27.5
Total Split (s)	13.0	39.5	40.0	13.0	39.5		40.0	40.0	40.0	27.5	27.5	27.5
Total Split (%)	10.8%	32.9%	33.3%	10.8%	32.9%		33.3%	33.3%	33.3%	22.9%	22.9%	22.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 87 (73%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 2: 148th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
2: 148th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	812	167	158	777	10	593	588	344	30	358	252
Future Volume (veh/h)	162	812	167	158	777	10	593	588	344	30	358	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	2003	2003	2003	1817	1817	1817
Adj Flow Rate, veh/h	174	873	180	170	835	11	710	531	0	32	385	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	380	1231	1029	218	1026	14	1082	568		254	507	
Arrive On Green	0.10	0.32	0.32	0.02	0.09	0.09	0.28	0.28	0.00	0.05	0.05	0.00
Sat Flow, veh/h	3701	3806	1691	3483	3620	48	3815	2003	1697	1731	3453	1540
Grp Volume(v), veh/h	174	873	180	170	413	433	710	531	0	32	385	0
Grp Sat Flow(s),veh/h/ln	1850	1903	1691	1742	1791	1876	1908	2003	1697	1731	1726	1540
Q Serve(g_s), s	5.3	24.2	5.6	5.8	27.2	27.2	19.7	31.0	0.0	2.1	13.2	0.0
Cycle Q Clear(g_c), s	5.3	24.2	5.6	5.8	27.2	27.2	19.7	31.0	0.0	2.1	13.2	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	1231	1029	218	507	532	1082	568		254	507	
V/C Ratio(X)	0.46	0.71	0.17	0.78	0.81	0.81	0.66	0.93		0.13	0.76	
Avail Cap(c_a), veh/h	380	1231	1029	218	507	532	1097	576		317	633	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	0.20	0.20	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	50.7	35.6	10.4	57.9	51.3	51.3	37.8	41.9	0.0	49.7	55.0	0.0
Incr Delay (d2), s/veh	0.9	3.5	0.4	12.8	10.4	9.9	0.3	6.5	0.0	0.2	4.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	11.5	4.0	3.0	14.5	15.1	9.0	15.8	0.0	0.9	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.6	39.1	10.7	70.8	61.7	61.2	38.1	48.4	0.0	49.9	59.0	0.0
LnGrp LOS	D	D	B	E	E	E	D	D		D	E	
Approach Vol, veh/h		1227			1016			1241			417	
Approach Delay, s/veh		36.7			63.0			42.5			58.3	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.8	39.5		23.1	13.0	44.3		39.5				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	7.5	34.0		22.0	7.5	34.0		34.5				
Max Q Clear Time (g_c+I1), s	7.3	29.2		15.2	7.8	26.2		33.0				
Green Ext Time (p_c), s	0.0	1.6		1.7	0.0	3.1		1.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	47.7
HCM 7th LOS	D

Notes
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

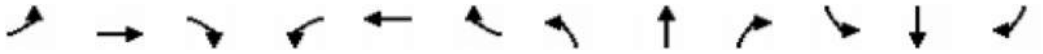
Lanes, Volumes, Timings
3: Willows Rd NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	1241	12	23	927	241	6	5	18	538	15	14
Future Volume (vph)	14	1241	12	23	927	241	6	5	18	538	15	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%			5%	
Storage Length (ft)	150		0	125		30	0		0	275		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		1580			850			188			922	
Travel Time (s)		26.9			14.5			5.1			18.0	
Confl. Peds. (#/hr)	12		4	4		12	19		5	5		19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)										47%		
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases												
Detector Phase	1	6		5	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	12.0		5.0	12.0		5.0	5.0		6.0	6.0	
Minimum Split (s)	11.0	19.0		10.0	19.0		23.0	23.0		25.0	25.0	
Total Split (s)	11.0	55.0		10.0	54.0		23.0	23.0		32.0	32.0	
Total Split (%)	9.2%	45.8%		8.3%	45.0%		19.2%	19.2%		26.7%	26.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willows Rd NE & Redmond Way

HCM 7th Signalized Intersection Summary
3: Willows Rd NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1241	12	23	927	241	6	5	18	538	15	14
Future Volume (veh/h)	14	1241	12	23	927	241	6	5	18	538	15	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.91	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	1900	1900	1900	1738	1738	1738
Adj Flow Rate, veh/h	15	1334	13	25	997	0	6	5	19	603	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	38	1609	16	269	1958		19	16	61	684	359	0
Arrive On Green	0.01	0.14	0.14	0.30	1.00	0.00	0.06	0.06	0.06	0.21	0.00	0.00
Sat Flow, veh/h	1908	3861	38	1795	3676	0	316	264	1001	3310	1738	0
Grp Volume(v), veh/h	15	657	690	25	997	0	30	0	0	603	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1996	1795	1791	0	1581	0	0	1655	1738	0
Q Serve(g_s), s	0.9	40.4	40.4	1.2	0.0	0.0	2.2	0.0	0.0	21.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	40.4	40.4	1.2	0.0	0.0	2.2	0.0	0.0	21.2	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.00	0.20		0.63	1.00		0.00
Lane Grp Cap(c), veh/h	38	793	831	269	1958		96	0	0	684	359	0
V/C Ratio(X)	0.40	0.83	0.83	0.09	0.51		0.31	0.00	0.00	0.88	0.00	0.00
Avail Cap(c_a), veh/h	95	793	831	269	1958		237	0	0	745	391	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.78	0.78	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.9	47.6	47.6	36.2	0.0	0.0	54.0	0.0	0.0	46.2	0.0	0.0
Incr Delay (d2), s/veh	3.1	6.3	6.1	0.0	0.7	0.0	0.7	0.0	0.0	12.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	21.9	22.9	0.5	0.2	0.0	0.9	0.0	0.0	9.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	62.0	53.9	53.7	36.2	0.7	0.0	54.7	0.0	0.0	58.3	0.0	0.0
LnGrp LOS	E	D	D	D	A		D			E		
Approach Vol, veh/h		1362			1022			30			603	
Approach Delay, s/veh		53.9			1.6			54.7			58.3	
Approach LOS		D			A			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	70.6		29.8	22.9	55.0		12.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	49.0		27.0	5.0	50.0		18.0				
Max Q Clear Time (g_c+I1), s	2.9	2.0		23.2	3.2	42.4		4.2				
Green Ext Time (p_c), s	0.0	18.0		1.6	0.0	6.4		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	37.1	
HCM 7th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1227	581	197	868	328	175
Future Volume (vph)	1227	581	197	868	328	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	-4%	
Storage Length (ft)		125	150		0	75
Storage Lanes		1	2		1	0
Taper Length (ft)			25		25	
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	35	
Link Distance (ft)	850			951	587	
Travel Time (s)	19.3			21.6	11.4	
Confl. Peds. (#/hr)		14	14			2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov	Prot	NA	Prot	
Protected Phases	6	4	5	2	4	
Permitted Phases		6				
Detector Phase	6	4	5	2	4	
Switch Phase						
Minimum Initial (s)	8.0	6.0	5.0	20.0	6.0	
Minimum Split (s)	22.0	25.0	10.0	25.0	25.0	
Total Split (s)	57.0	48.0	15.0	72.0	48.0	
Total Split (%)	47.5%	40.0%	12.5%	60.0%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 48 (40%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: West Lake Sammamish Pkwy NE & Redmond Way

HCM 7th Signalized Intersection Summary
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1227	581	197	868	328	175
Future Volume (veh/h)	1227	581	197	868	328	175
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2003	2003	1832	1832	2027	2027
Adj Flow Rate, veh/h	1239	587	199	877	331	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	1649	724	837	2514	375	
Arrive On Green	0.87	0.87	0.49	1.00	0.19	0.00
Sat Flow, veh/h	3906	1670	3385	3573	1925	0
Grp Volume(v), veh/h	1239	587	199	877	332	0
Grp Sat Flow(s),veh/h/ln	1903	1670	1693	1741	1931	0
Q Serve(g_s), s	14.9	18.9	4.0	0.0	20.1	0.0
Cycle Q Clear(g_c), s	14.9	18.9	4.0	0.0	20.1	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	1649	724	837	2514	376	
V/C Ratio(X)	0.75	0.81	0.24	0.35	0.88	
Avail Cap(c_a), veh/h	1649	724	837	2514	692	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.91	0.91	0.93	0.00
Uniform Delay (d), s/veh	5.5	5.8	23.9	0.0	47.0	0.0
Incr Delay (d2), s/veh	2.2	6.6	0.1	0.3	6.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.7	1.6	0.1	10.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.7	12.4	24.0	0.3	53.5	0.0
LnGrp LOS	A	B	C	A	D	
Approach Vol, veh/h	1826			1076	332	
Approach Delay, s/veh	9.2			4.7	53.5	
Approach LOS	A			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		91.7		28.3	34.7	57.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		67.0		43.0	10.0	52.0
Max Q Clear Time (g_c+I1), s		2.0		22.1	6.0	20.9
Green Ext Time (p_c), s		4.9		1.3	0.3	12.5

Intersection Summary	
HCM 7th Control Delay, s/veh	12.3
HCM 7th LOS	B

Notes

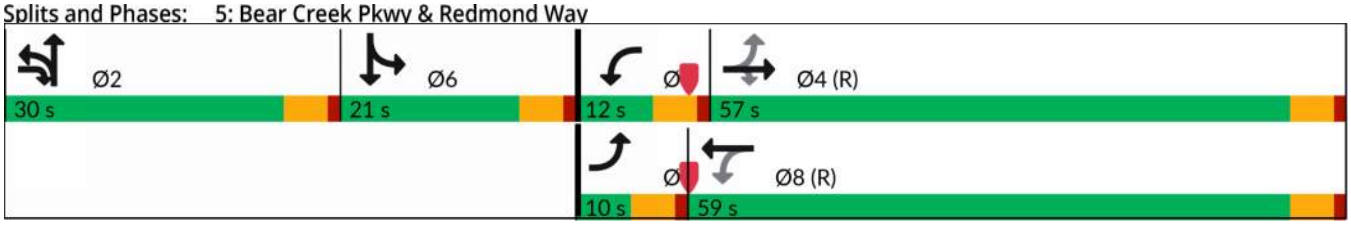
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: Bear Creek Pkwy & Redmond Way 03/21/2025

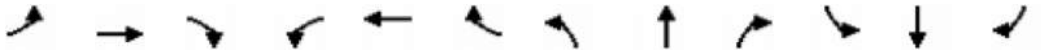
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	906	464	65	839	18	246	4	73	21	5	17
Future Volume (vph)	10	906	464	65	839	18	246	4	73	21	5	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-4%			0%			0%			0%	
Storage Length (ft)	150		175	150		0	125		0	0		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		951			828			488			167	
Travel Time (s)		21.6			18.8			11.1			4.6	
Confl. Peds. (#/hr)	9		15	15		9	9		19	19		9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							33%					
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases	4		4	8								
Detector Phase	7	4	2	3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	21.0		24.0	24.0		21.0	21.0	
Total Split (s)	10.0	57.0	30.0	12.0	59.0		30.0	30.0		21.0	21.0	
Total Split (%)	8.3%	47.5%	25.0%	10.0%	49.2%		25.0%	25.0%		17.5%	17.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes				
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 68 (57%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bear Creek Pkwy & Redmond Way



HCM 7th Signalized Intersection Summary
5: Bear Creek Pkwy & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	906	464	65	839	18	246	4	73	21	5	17
Future Volume (veh/h)	10	906	464	65	839	18	246	4	73	21	5	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2042	2042	2042	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	934	478	67	865	19	167	126	75	22	5	18
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	425	2307	1261	355	2220	49	256	155	92	109	20	72
Arrive On Green	0.02	1.00	1.00	0.04	0.62	0.62	0.14	0.14	0.14	0.06	0.06	0.06
Sat Flow, veh/h	1945	3880	1709	1795	3582	79	1810	1097	653	1810	334	1202
Grp Volume(v), veh/h	10	934	478	67	432	452	167	0	201	22	0	23
Grp Sat Flow(s),veh/h/ln	1945	1940	1709	1795	1791	1870	1810	0	1750	1810	0	1535
Q Serve(g_s), s	0.2	0.0	0.0	1.7	14.5	14.5	10.5	0.0	13.4	1.4	0.0	1.7
Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.7	14.5	14.5	10.5	0.0	13.4	1.4	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.37	1.00		0.78
Lane Grp Cap(c), veh/h	425	2307	1261	355	1110	1159	256	0	248	109	0	92
V/C Ratio(X)	0.02	0.40	0.38	0.19	0.39	0.39	0.65	0.00	0.81	0.20	0.00	0.25
Avail Cap(c_a), veh/h	483	2307	1261	392	1110	1159	377	0	365	241	0	205
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	0.0	0.0	8.4	11.4	11.4	48.7	0.0	50.0	53.6	0.0	53.8
Incr Delay (d2), s/veh	0.0	0.3	0.5	0.1	0.8	0.7	2.1	0.0	7.1	0.9	0.0	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.2	0.7	5.8	6.1	4.9	0.0	6.3	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.8	0.3	0.5	8.5	12.2	12.2	50.8	0.0	57.1	54.5	0.0	55.2
LnGrp LOS	A	A	A	A	B	B	D		E	D		E
Approach Vol, veh/h		1422			951			368			45	
Approach Delay, s/veh		0.5			11.9			54.2			54.9	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	22.0	9.5	76.3	12.2	6.4	79.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	7.0	52.0	16.0	5.0	54.0
Max Q Clear Time (g_c+I1), s	15.4	3.7	2.0	3.7	2.2	16.5
Green Ext Time (p_c), s	0.8	0.0	6.8	0.1	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	12.4
HCM 7th LOS	B

Notes

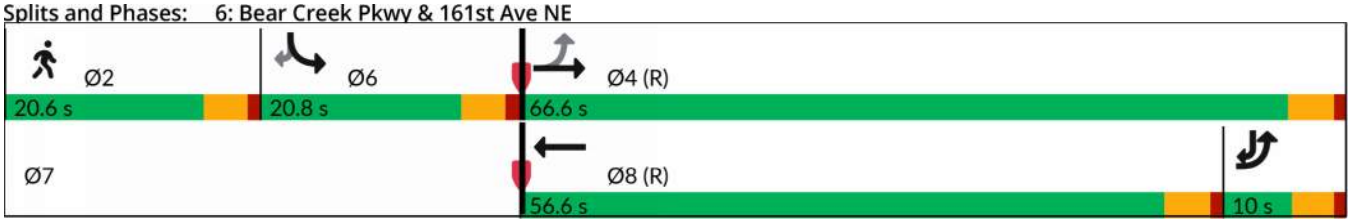
User approved volume balancing among the lanes for turning movement.

Lanes, Volumes, Timings
6: Bear Creek Pkwy & 161st Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	30	438	289	172	100	73	
Future Volume (vph)	30	438	289	172	100	73	
Satd. Flow (prot)	1787	1693	1501	0	1787	1599	
Flt Permitted	0.375				0.950		
Satd. Flow (perm)	705	1693	1501	0	1612	1445	
Satd. Flow (RTOR)			38			83	
Confl. Peds. (#/hr)	48			48	29	23	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	
Parking (#/hr)		0	0	0			
Shared Lane Traffic (%)							
Lane Group Flow (vph)	34	498	523	0	114	83	
Turn Type	pm+pt	NA	NA		Prot	pm+ov	
Protected Phases	7	4	8		6	7	2
Permitted Phases	4					6	
Detector Phase	7	4	8		6	7	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.4	9.6	20.6		20.6	9.4	20.6
Total Split (s)	10.0	66.6	56.6		20.8	10.0	20.6
Total Split (%)	9.3%	61.7%	52.4%		19.3%	9.3%	19%
Yellow Time (s)	3.4	3.6	3.6		3.6	3.4	3.6
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.4	4.6	4.6		4.6	4.4	
Lead/Lag	Lag		Lead		Lag	Lag	Lead
Lead-Lag Optimize?							
Recall Mode	None	C-Max	C-Max		None	None	None
Act Effct Green (s)	74.2	74.0	66.0		12.4	18.2	
Actuated g/C Ratio	0.69	0.69	0.61		0.11	0.17	
v/c Ratio	0.06	0.43	0.56		0.56	0.26	
Control Delay (s/veh)	9.7	11.7	15.1		54.8	6.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	9.7	11.7	15.1		54.8	6.7	
LOS	A	B	B		D	A	
Approach Delay (s/veh)		11.6	15.1		34.5		
Approach LOS		B	B		C		

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 11 (10%), Referenced to phase 4:EBTL and 8:WBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay (s/veh): 16.7	Intersection LOS: B
Intersection Capacity Utilization 44.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Bear Creek Pkwy & 161st Ave NE

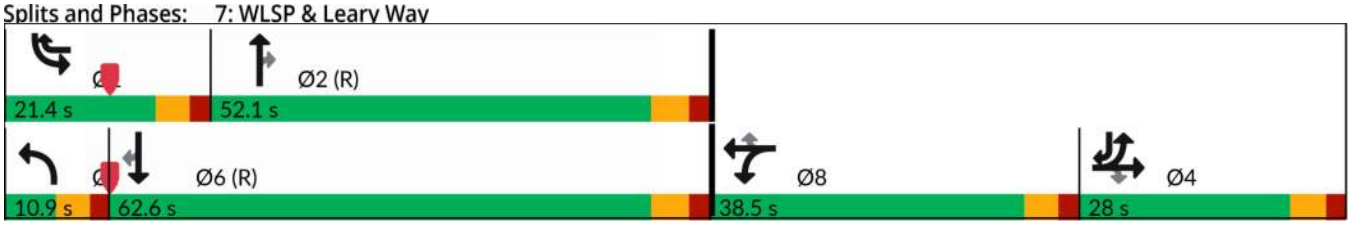


Lanes, Volumes, Timings
7: WLSP & Leary Way 03/21/2025

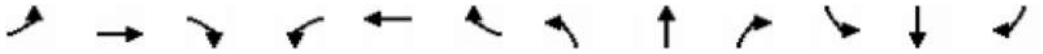
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	10	192	251	440	79	14	918	1041	189	794	529
Future Volume (vph)	260	10	192	251	440	79	14	918	1041	189	794	529
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-6%			3%			0%			0%	
Storage Length (ft)	0		175	200		150	200		275	175		0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		718			834			1781			1175	
Travel Time (s)		16.3			19.0			30.4			20.0	
Confl. Peds. (#/hr)	34					34			3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)				11%								
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	4	4		8	8	1	5	2		1	6	4
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	1	5	2	2	1	6	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	7.0	5.0	10.0	10.0	7.0	10.0	5.0
Minimum Split (s)	10.9	10.9	10.9	38.5	38.5	12.5	10.5	33.9	33.9	12.5	15.9	10.9
Total Split (s)	28.0	28.0	28.0	38.5	38.5	21.4	10.9	52.1	52.1	21.4	62.6	28.0
Total Split (%)	20.0%	20.0%	20.0%	27.5%	27.5%	15.3%	7.8%	37.2%	37.2%	15.3%	44.7%	20.0%
Yellow Time (s)	3.9	3.9	3.9	3.5	3.5	3.5	3.5	3.9	3.9	3.5	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.9	5.9	5.5	5.5	5.5	5.5	5.9	5.9	5.5	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	None

Intersection Summary
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 92 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 7: WLSP & Leary Way



HCM 7th Signalized Intersection Summary
7: WLSP & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	10	192	251	440	79	14	918	1041	189	794	529
Future Volume (veh/h)	260	10	192	251	440	79	14	918	1041	189	794	529
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2076	2076	2076	1817	1817	1817	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	11	202	242	493	83	15	966	0	199	836	557
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	12	258	361	759	481	28	1273		202	1620	970
Arrive On Green	0.16	0.16	0.16	0.21	0.21	0.21	0.01	0.12	0.00	0.11	0.46	0.46
Sat Flow, veh/h	1904	76	1645	1731	3635	1465	1781	3554	1585	1781	3554	1582
Grp Volume(v), veh/h	285	0	202	242	493	83	15	966	0	199	836	557
Grp Sat Flow(s),veh/h/ln	1981	0	1645	1731	1817	1465	1781	1777	1585	1781	1777	1582
Q Serve(g_s), s	19.8	0.0	16.5	18.0	17.4	5.7	1.2	36.9	0.0	15.6	23.4	29.5
Cycle Q Clear(g_c), s	19.8	0.0	16.5	18.0	17.4	5.7	1.2	36.9	0.0	15.6	23.4	29.5
Prop In Lane	0.96		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	0	258	361	759	481	28	1273		202	1620	970
V/C Ratio(X)	0.92	0.00	0.78	0.67	0.65	0.17	0.53	0.76		0.98	0.52	0.57
Avail Cap(c_a), veh/h	313	0	260	408	857	520	69	1273		202	1620	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.95	0.95	0.31	0.31	0.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	58.2	0.0	56.8	50.9	50.7	34.1	69.1	55.9	0.0	61.9	27.1	16.2
Incr Delay (d2), s/veh	30.7	0.0	14.4	4.1	1.7	0.2	4.8	1.4	0.0	55.2	1.1	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	0.0	7.9	8.3	8.1	2.1	0.6	17.9	0.0	10.1	10.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.8	0.0	71.2	55.0	52.4	34.3	73.9	57.2	0.0	117.1	28.2	18.4
LnGrp LOS	F		E	E	D	C	E	E		F	C	B
Approach Vol, veh/h		487			818			981			1592	
Approach Delay, s/veh		81.5			51.3			57.5			35.9	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.4	56.0		27.8	7.7	69.7		34.7				
Change Period (Y+Rc), s	5.5	5.9		5.9	5.5	5.9		5.5				
Max Green Setting (Gmax), s	15.9	46.2		22.1	5.4	56.7		33.0				
Max Q Clear Time (g_c+I1), s	17.6	38.9		21.8	3.2	31.5		20.0				
Green Ext Time (p_c), s	0.0	3.7		0.1	0.0	11.3		5.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	50.3
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

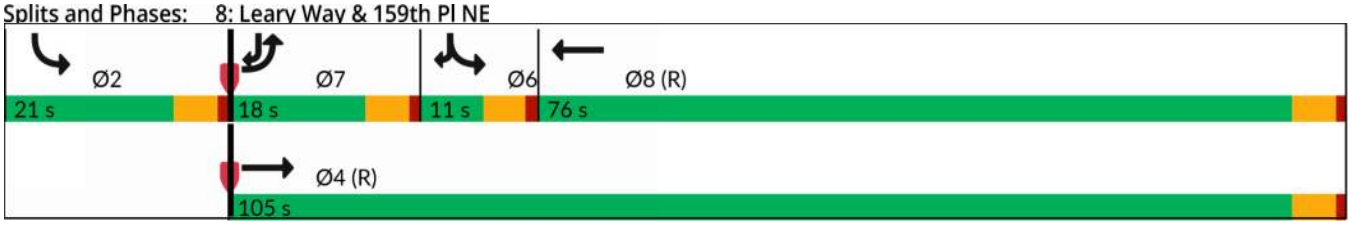
Lanes, Volumes, Timings
8: Leary Way & 159th Pl NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø6
Lane Configurations								
Traffic Volume (vph)	89	1170	751	16	24	72		
Future Volume (vph)	89	1170	751	16	24	72		
Satd. Flow (prot)	1787	1881	3550	0	1805	1615		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1684	1881	3550	0	1805	1615		
Satd. Flow (RTOR)			3			74		
Confl. Peds. (#/hr)	41			41		29		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%		
Mid-Block Traffic (%)		0%	0%		50%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	92	1206	790	0	25	74		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	7	4!	8		2 6!	6 7	2	6
Permitted Phases								
Detector Phase	7	4	8		2 6	7		
Switch Phase								
Minimum Initial (s)	5.0	7.0	7.0				4.0	6.0
Minimum Split (s)	10.0	12.0	20.0				21.0	11.0
Total Split (s)	18.0	105.0	76.0				21.0	11.0
Total Split (%)	14.3%	83.3%	60.3%				17%	9%
Yellow Time (s)	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	1.0	1.0	1.0				1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0					
Total Lost Time (s)	5.0	5.0	5.0					
Lead/Lag	Lead							Lag
Lead-Lag Optimize?	Yes							Yes
Recall Mode	None	C-Max	C-Max				None	None
Act Effct Green (s)	10.4	107.4	84.4		17.5	17.0		
Actuated g/C Ratio	0.08	0.85	0.67		0.14	0.13		
v/c Ratio	0.63	0.75	0.33		0.10	0.26		
Control Delay (s/veh)	74.1	9.9	11.7		30.6	11.8		
Queue Delay	0.0	1.3	0.0		0.0	0.0		
Total Delay (s/veh)	74.1	11.2	11.7		30.6	11.8		
LOS	E	B	B		C	B		
Approach Delay (s/veh)		15.6	11.7		16.6			
Approach LOS		B	B		B			

Intersection Summary	
Cycle Length: 126	
Actuated Cycle Length: 126	
Offset: 0 (0%), Referenced to phase 8:WBT and 4:EBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay (s/veh): 14.2	Intersection LOS: B
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 8: Leary Way & 159th Pl NE



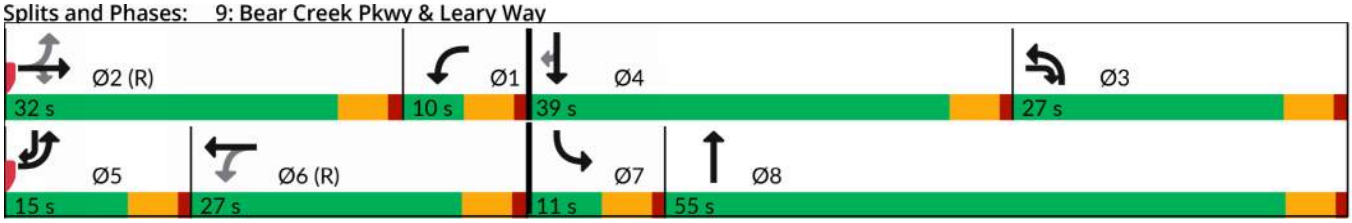
Lanes, Volumes, Timings
9: Bear Creek Pkwy & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	520	521	17	303	74	313	242	11	40	434	78
Future Volume (vph)	152	520	521	17	303	74	313	242	11	40	434	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		225	175		0	190		0	275		100
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		664			421			452			692	
Travel Time (s)		15.1			9.6			10.3			15.7	
Confl. Peds. (#/hr)	12		6	6		12	6		17	17		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8		7	4	5
Permitted Phases	2		2	6								4
Detector Phase	5	2	3	1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	5.0
Minimum Split (s)	10.0	26.2	11.2	10.0	24.2		11.2	28.0		10.0	26.0	10.0
Total Split (s)	15.0	32.0	27.0	10.0	27.0		27.0	55.0		11.0	39.0	15.0
Total Split (%)	13.9%	29.6%	25.0%	9.3%	25.0%		25.0%	50.9%		10.2%	36.1%	13.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.2	1.2	1.0	1.2		1.2	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.2	5.2	5.0	5.2		5.2	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	None

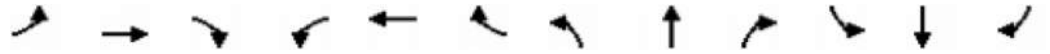
Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 88 (81%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bear Creek Pkwy & Leary Way



HCM 7th Signalized Intersection Summary
9: Bear Creek Pkwy & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	520	521	17	303	74	313	242	11	40	434	78
Future Volume (veh/h)	152	520	521	17	303	74	313	242	11	40	434	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	155	531	532	17	309	76	319	247	11	41	443	80
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	258	882	571	446	975	236	407	611	27	59	488	553
Arrive On Green	0.09	0.25	0.25	0.18	0.34	0.34	0.12	0.34	0.34	0.03	0.26	0.26
Sat Flow, veh/h	1781	3554	1547	1795	2849	689	3456	1776	79	1795	1885	1566
Grp Volume(v), veh/h	155	531	532	17	192	193	319	0	258	41	443	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1547	1795	1791	1747	1728	0	1855	1795	1885	1566
Q Serve(g_s), s	8.0	14.3	22.7	0.0	8.5	8.8	9.7	0.0	11.4	2.4	24.6	2.3
Cycle Q Clear(g_c), s	8.0	14.3	22.7	0.0	8.5	8.8	9.7	0.0	11.4	2.4	24.6	2.3
Prop In Lane	1.00		1.00	1.00		0.39	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	258	882	571	446	613	598	407	0	638	59	488	553
V/C Ratio(X)	0.60	0.60	0.93	0.04	0.31	0.32	0.78	0.00	0.40	0.70	0.91	0.14
Avail Cap(c_a), veh/h	259	882	571	446	613	598	698	0	859	100	593	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	1.00	1.00	1.00	0.89	0.00	0.89	0.89	0.89	0.89
Uniform Delay (d), s/veh	36.6	35.9	32.8	29.3	26.2	26.3	46.3	0.0	27.0	51.7	38.8	10.2
Incr Delay (d2), s/veh	1.9	1.8	16.6	0.0	1.3	1.4	3.0	0.0	0.4	12.4	14.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	6.4	10.0	0.3	3.9	3.9	4.3	0.0	5.1	1.3	13.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.5	37.7	49.5	29.3	27.5	27.7	49.3	0.0	27.4	64.1	53.1	10.3
LnGrp LOS	D	D	D	C	C	C	D		C	E	D	B
Approach Vol, veh/h		1218			402			577			564	
Approach Delay, s/veh		42.9			27.7			39.5			47.9	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	32.0	17.9	33.0	14.9	42.2	8.5	42.4
Change Period (Y+Rc), s	5.2	* 5.2	5.2	5.0	5.0	5.2	5.0	* 5.2
Max Green Setting (Gmax), s	5.0	* 27	21.8	34.0	10.0	21.8	6.0	* 50
Max Q Clear Time (g_c+I1), s	2.0	24.7	11.7	26.6	10.0	10.8	4.4	13.4
Green Ext Time (p_c), s	0.0	1.2	1.0	1.4	0.0	1.2	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	41.0
HCM 7th LOS	D

Notes

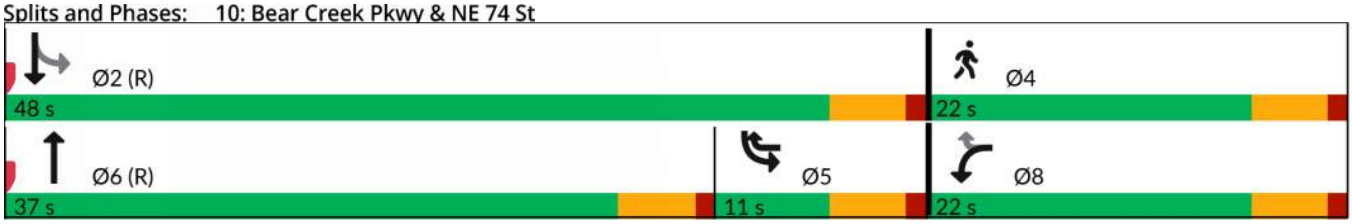
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
10: Bear Creek Pkwy & NE 74 St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	21	171	527	10	128	861	
Future Volume (vph)	21	171	527	10	128	861	
Satd. Flow (prot)	1805	1615	1857	0	1787	1881	
Flt Permitted	0.950				0.369		
Satd. Flow (perm)	1641	1615	1857	0	686	1881	
Satd. Flow (RTOR)		174	2				
Confl. Peds. (#/hr)	44			20	20		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	21	174	548	0	131	879	
Turn Type	Prot	pm+ov	NA		pm+pt	NA	
Protected Phases	8	5	6		5	2	4
Permitted Phases		8			2		
Detector Phase	8	5	6		5	2	
Switch Phase							
Minimum Initial (s)	7.0	4.0	8.0		4.0	5.0	8.0
Minimum Split (s)	12.0	9.0	23.0		9.0	10.0	22.0
Total Split (s)	22.0	11.0	37.0		11.0	48.0	22.0
Total Split (%)	31.4%	15.7%	52.9%		15.7%	68.6%	31%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0	
Lead/Lag		Lag	Lead		Lag		
Lead-Lag Optimize?		Yes	Yes		Yes		
Recall Mode	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	13.0	19.2	40.8		51.8	53.8	
Actuated g/C Ratio	0.19	0.27	0.58		0.74	0.77	
v/c Ratio	0.06	0.31	0.51		0.22	0.61	
Control Delay (s/veh)	21.2	4.0	13.9		6.9	9.9	
Queue Delay	0.0	0.0	0.0		0.0	0.5	
Total Delay (s/veh)	21.2	4.0	13.9		6.9	10.4	
LOS	C	A	B		A	B	
Approach Delay (s/veh)	5.9		13.9			9.9	
Approach LOS	A		B			A	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay (s/veh): 10.7	Intersection LOS: B
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Bear Creek Pkwy & NE 74 St



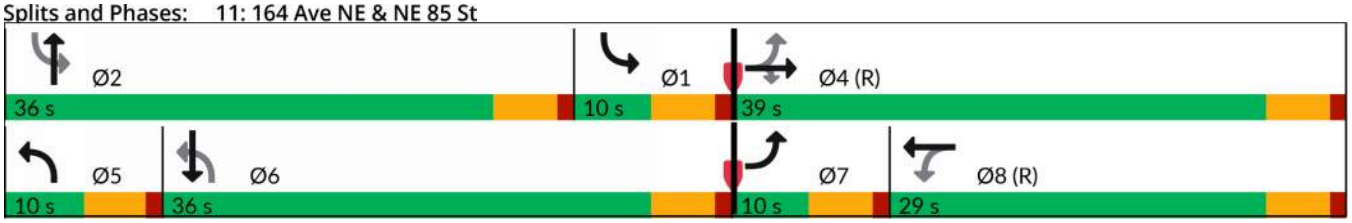
Lanes, Volumes, Timings
11: 164 Ave NE & NE 85 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	331	62	7	189	156	25	455	18	154	338	32
Future Volume (vph)	63	331	62	7	189	156	25	455	18	154	338	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		0	250		0	240		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			30	
Link Distance (ft)		469			304			659			473	
Travel Time (s)		10.7			6.9			16.0			10.8	
Confl. Peds. (#/hr)	12					12	22					22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8			6			2		
Detector Phase	7	4	4	8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0		10.0	22.0		10.0	27.0	
Total Split (s)	10.0	39.0	39.0	29.0	29.0		10.0	36.0		10.0	36.0	
Total Split (%)	11.8%	45.9%	45.9%	34.1%	34.1%		11.8%	42.4%		11.8%	42.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max		None	None		None	None	

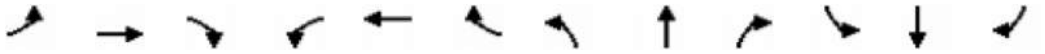
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 11: 164 Ave NE & NE 85 St



HCM 7th Signalized Intersection Summary
11: 164 Ave NE & NE 85 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	331	62	7	189	156	25	455	18	154	338	32
Future Volume (veh/h)	63	331	62	7	189	156	25	455	18	154	338	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	0.99		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	66	348	65	7	199	164	26	479	19	162	356	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	380	903	756	435	354	291	272	522	21	218	542	52
Arrive On Green	0.05	0.48	0.48	0.37	0.37	0.37	0.03	0.29	0.29	0.06	0.32	0.32
Sat Flow, veh/h	1810	1900	1590	980	956	787	1795	1798	71	1795	1688	161
Grp Volume(v), veh/h	66	348	65	7	0	363	26	0	498	162	0	390
Grp Sat Flow(s),veh/h/ln	1810	1900	1590	980	0	1743	1795	0	1869	1795	0	1849
Q Serve(g_s), s	1.8	10.0	1.9	0.4	0.0	14.1	0.8	0.0	21.9	2.0	0.0	15.4
Cycle Q Clear(g_c), s	1.8	10.0	1.9	1.4	0.0	14.1	0.8	0.0	21.9	2.0	0.0	15.4
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	380	903	756	435	0	645	272	0	543	218	0	594
V/C Ratio(X)	0.17	0.39	0.09	0.02	0.00	0.56	0.10	0.00	0.92	0.74	0.00	0.66
Avail Cap(c_a), veh/h	403	903	756	435	0	645	329	0	682	220	0	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	14.3	12.2	17.7	0.0	21.3	19.8	0.0	29.2	37.7	0.0	24.8
Incr Delay (d2), s/veh	0.1	1.2	0.2	0.1	0.0	3.5	0.0	0.0	12.3	11.2	0.0	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.4	0.7	0.1	0.0	6.1	0.3	0.0	11.3	3.9	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	15.6	12.4	17.7	0.0	24.8	19.8	0.0	41.5	48.9	0.0	26.1
LnGrp LOS	B	B	B	B		C	B		D	D		C
Approach Vol, veh/h		479			370			524			552	
Approach Delay, s/veh		15.1			24.7			40.4			32.8	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	29.7		45.4	7.3	32.3	8.9	36.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	31.0		34.0	5.0	31.0	5.0	24.0				
Max Q Clear Time (g_c+I1), s	4.0	23.9		12.0	2.8	17.4	3.8	16.1				
Green Ext Time (p_c), s	0.0	0.8		0.9	0.0	0.8	0.0	0.6				

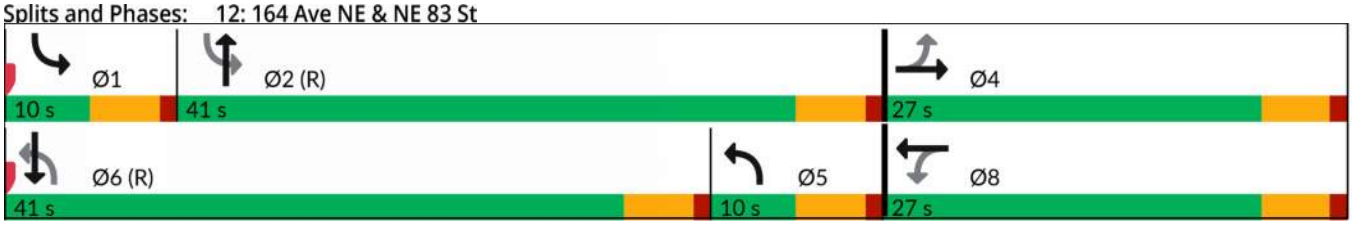
Intersection Summary	
HCM 7th Control Delay, s/veh	28.9
HCM 7th LOS	C

Lanes, Volumes, Timings
12: 164 Ave NE & NE 83 St 03/21/2025

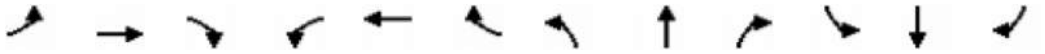
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	190	60	22	106	34	54	435	43	61	331	16
Future Volume (vph)	36	190	60	22	106	34	54	435	43	61	331	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			28	
Link Distance (ft)		968			599			662			659	
Travel Time (s)		22.0			13.6			16.1			16.0	
Confl. Peds. (#/hr)	34		47	47		34	24		31	31		24
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	3%	3%	3%	1%	1%	1%
Mid-Block Traffic (%)		40%			20%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	19.0		10.0	19.0	
Total Split (s)	27.0	27.0		27.0	27.0		10.0	41.0		10.0	41.0	
Total Split (%)	34.6%	34.6%		34.6%	34.6%		12.8%	52.6%		12.8%	52.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

Intersection Summary
Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 17 (22%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: 164 Ave NE & NE 83 St



HCM 7th Signalized Intersection Summary
12: 164 Ave NE & NE 83 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	190	60	22	106	34	54	435	43	61	331	16
Future Volume (veh/h)	36	190	60	22	106	34	54	435	43	61	331	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.92		0.88	0.95		0.88	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1885	1885	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	37	196	62	23	109	35	56	448	44	63	341	16
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	1	1	1	3	3	3	1	1	1
Cap, veh/h	239	261	82	149	268	86	683	924	91	679	823	39
Arrive On Green	0.07	0.07	0.07	0.20	0.20	0.20	0.29	1.00	1.00	0.05	0.46	0.46
Sat Flow, veh/h	1120	1284	406	1073	1320	424	1767	1658	163	1795	1783	84
Grp Volume(v), veh/h	37	0	258	23	0	144	56	0	492	63	0	357
Grp Sat Flow(s),veh/h/ln	1120	0	1690	1073	0	1743	1767	0	1821	1795	0	1867
Q Serve(g_s), s	2.5	0.0	11.7	1.6	0.0	5.6	0.0	0.0	0.0	1.1	0.0	9.9
Cycle Q Clear(g_c), s	8.1	0.0	11.7	13.3	0.0	5.6	0.0	0.0	0.0	1.1	0.0	9.9
Prop In Lane	1.00		0.24	1.00		0.24	1.00		0.09	1.00		0.04
Lane Grp Cap(c), veh/h	239	0	343	149	0	354	683	0	1014	679	0	862
V/C Ratio(X)	0.15	0.00	0.75	0.15	0.00	0.41	0.08	0.00	0.49	0.09	0.00	0.41
Avail Cap(c_a), veh/h	328	0	477	234	0	492	683	0	1014	708	0	862
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	0.91	0.99	0.00	0.99	0.90	0.00	0.90	0.79	0.00	0.79
Uniform Delay (d), s/veh	35.5	0.0	34.5	35.7	0.0	27.0	9.3	0.0	0.0	6.3	0.0	14.0
Incr Delay (d2), s/veh	0.1	0.0	2.2	0.2	0.0	0.3	0.0	0.0	1.5	0.0	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	5.4	0.4	0.0	2.3	0.4	0.0	0.4	0.4	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.6	0.0	36.7	35.9	0.0	27.3	9.3	0.0	1.5	6.3	0.0	15.1
LnGrp LOS	D		D	D		C	A		A	A		B
Approach Vol, veh/h		295			167			548			420	
Approach Delay, s/veh		36.5			28.5			2.3			13.8	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	48.4		20.8	16.2	41.0		20.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	36.0		22.0	5.0	36.0		22.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0		13.7	2.0	11.9		15.3				
Green Ext Time (p_c), s	0.0	1.4		0.5	0.0	0.8		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			15.8									
HCM 7th LOS			B									

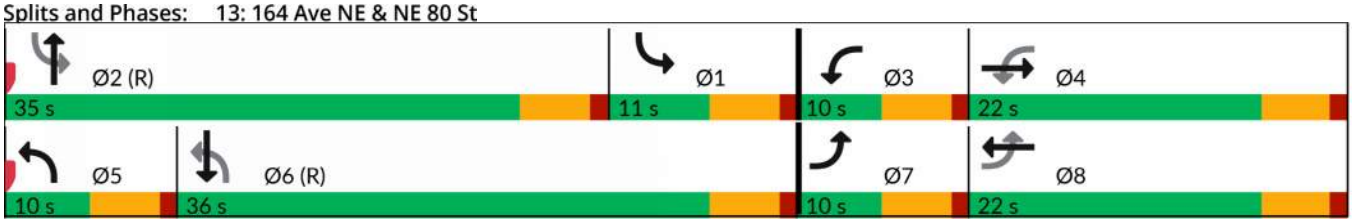
Lanes, Volumes, Timings
13: 164 Ave NE & NE 80 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	146	19	31	175	51	21	309	55	99	323	61
Future Volume (vph)	68	146	19	31	175	51	21	309	55	99	323	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	150		0	100		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			28			28	
Link Distance (ft)		178			313			347			662	
Travel Time (s)		4.9			8.5			8.4			16.1	
Confl. Peds. (#/hr)	27		24	24		27	37		22	22		37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8			4			6			2		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	17.0		10.0	18.0		10.0	18.0		10.0	19.0	
Total Split (s)	10.0	22.0		10.0	22.0		10.0	35.0		11.0	36.0	
Total Split (%)	12.8%	28.2%		12.8%	28.2%		12.8%	44.9%		14.1%	46.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes			Yes			Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

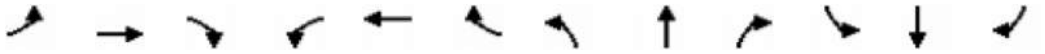
Intersection Summary

Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 17 (22%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: 164 Ave NE & NE 80 St



HCM 7th Signalized Intersection Summary
13: 164 Ave NE & NE 80 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	146	19	31	175	51	21	309	55	99	323	61
Future Volume (veh/h)	68	146	19	31	175	51	21	309	55	99	323	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.97		0.93	0.97		0.92	0.98		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	157	20	33	188	55	23	332	59	106	347	66
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	3	3	3
Cap, veh/h	219	296	38	263	225	66	612	585	104	576	757	144
Arrive On Green	0.05	0.18	0.18	0.03	0.16	0.16	0.03	0.51	0.51	0.29	1.00	1.00
Sat Flow, veh/h	1795	1622	207	1795	1370	401	1767	1521	270	1767	1505	286
Grp Volume(v), veh/h	73	0	177	33	0	243	23	0	391	106	0	413
Grp Sat Flow(s),veh/h/ln	1795	0	1829	1795	0	1771	1767	0	1791	1767	0	1791
Q Serve(g_s), s	2.6	0.0	6.8	1.1	0.0	10.4	0.5	0.0	11.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	6.8	1.1	0.0	10.4	0.5	0.0	11.7	0.0	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.23	1.00		0.15	1.00		0.16
Lane Grp Cap(c), veh/h	219	0	334	263	0	291	612	0	689	576	0	901
V/C Ratio(X)	0.33	0.00	0.53	0.13	0.00	0.83	0.04	0.00	0.57	0.18	0.00	0.46
Avail Cap(c_a), veh/h	242	0	399	319	0	386	681	0	689	576	0	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.94	0.00	0.94	0.96	0.00	0.96
Uniform Delay (d), s/veh	25.8	0.0	28.8	24.8	0.0	31.6	8.7	0.0	14.6	13.8	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.0	0.2	0.0	10.3	0.0	0.0	3.2	0.1	0.0	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.0	0.5	0.0	5.2	0.2	0.0	4.6	1.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.4	0.0	29.8	24.9	0.0	41.9	8.7	0.0	17.8	13.9	0.0	1.6
LnGrp LOS	C		C	C		D	A		B	B		A
Approach Vol, veh/h		250			276			414			519	
Approach Delay, s/veh		28.8			39.9			17.3			4.1	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	35.0	7.6	19.2	7.0	44.2	9.0	17.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	30.0	5.0	17.0	5.0	31.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	2.0	13.7	3.1	8.8	2.5	2.0	4.6	12.4
Green Ext Time (p_c), s	0.1	1.2	0.0	0.3	0.0	1.4	0.0	0.3

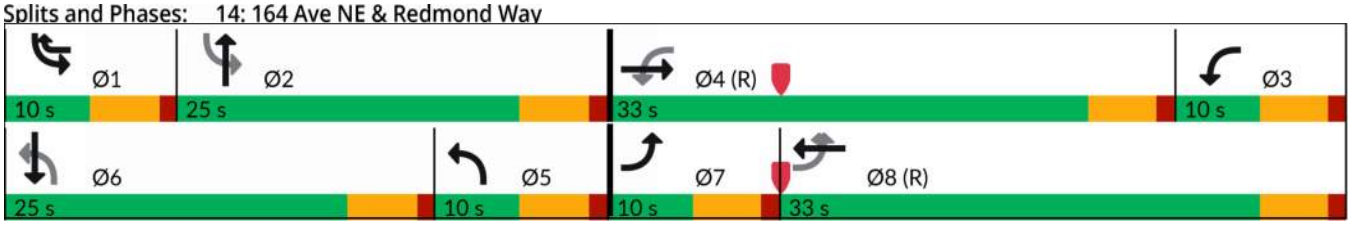
Intersection Summary	
HCM 7th Control Delay, s/veh	18.8
HCM 7th LOS	B

Lanes, Volumes, Timings
14: 164 Ave NE & Redmond Way 03/21/2025

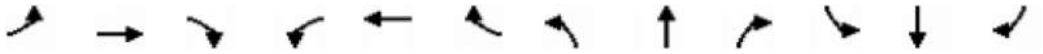
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	521	18	23	571	222	44	134	34	188	129	19
Future Volume (vph)	30	521	18	23	571	222	44	134	34	188	129	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	70		0	150		150
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		314			714			325			347	
Travel Time (s)		7.1			16.2			7.4			7.9	
Confl. Peds. (#/hr)	56		39	39		56	61		51	51		61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA	pm+ov	D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	8			4		8	6			2		
Detector Phase	7	4		3	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	10.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	22.0		10.0	24.0	10.0	10.0	25.0		10.0	24.0	
Total Split (s)	10.0	33.0		10.0	33.0	10.0	10.0	25.0		10.0	25.0	
Total Split (%)	12.8%	42.3%		12.8%	42.3%	12.8%	12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 10 (13%), Referenced to phase 4:EBWB and 8:EBWB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 14: 164 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
14: 164 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	521	18	23	571	222	44	134	34	188	129	19
Future Volume (veh/h)	30	521	18	23	571	222	44	134	34	188	129	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.93	0.95		0.86	0.91		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1670	1670	1670	1697	1697	1697	1643	1643	1643
Adj Flow Rate, veh/h	31	537	19	24	589	229	45	138	35	194	133	20
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	3	3	1	1	1	5	5	5
Cap, veh/h	297	578	20	311	716	658	334	276	70	329	293	44
Arrive On Green	0.06	0.72	0.72	0.20	0.86	0.86	0.14	0.44	0.44	0.02	0.07	0.07
Sat Flow, veh/h	1603	1610	57	1590	1670	1323	1616	1259	319	1565	1376	207
Grp Volume(v), veh/h	31	0	556	24	589	229	45	0	173	194	0	153
Grp Sat Flow(s),veh/h/ln	1603	0	1667	1590	1670	1323	1616	0	1578	1565	0	1583
Q Serve(g_s), s	0.8	0.0	22.0	0.0	13.3	2.6	0.0	0.0	6.1	5.0	0.0	7.2
Cycle Q Clear(g_c), s	0.8	0.0	22.0	0.0	13.3	2.6	0.0	0.0	6.1	5.0	0.0	7.2
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		0.13
Lane Grp Cap(c), veh/h	297	0	599	311	716	658	334	0	346	329	0	337
V/C Ratio(X)	0.10	0.00	0.93	0.08	0.82	0.35	0.13	0.00	0.50	0.59	0.00	0.45
Avail Cap(c_a), veh/h	349	0	599	311	716	658	334	0	405	329	0	406
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.77	0.00	0.77	0.82	0.82	0.82	0.81	0.00	0.81	0.92	0.00	0.92
Uniform Delay (d), s/veh	12.4	0.0	10.2	24.1	4.1	2.7	24.6	0.0	18.8	26.4	0.0	31.9
Incr Delay (d2), s/veh	0.1	0.0	19.0	0.1	8.6	1.2	0.1	0.0	0.9	2.5	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	6.3	0.3	3.3	0.7	0.6	0.0	2.0	1.3	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.5	0.0	29.1	24.2	12.8	3.9	24.7	0.0	19.7	28.9	0.0	32.8
LnGrp LOS	B		C	C	B	A	C		B	C		C
Approach Vol, veh/h		587			842			218			347	
Approach Delay, s/veh		28.3			10.7			20.7			30.6	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.1	12.9	33.0	10.5	21.6	7.4	38.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	28.0	5.0	20.0	5.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	8.1	2.0	24.0	2.0	9.2	2.8	15.3
Green Ext Time (p_c), s	0.0	0.8	0.0	1.0	0.0	0.6	0.0	3.0

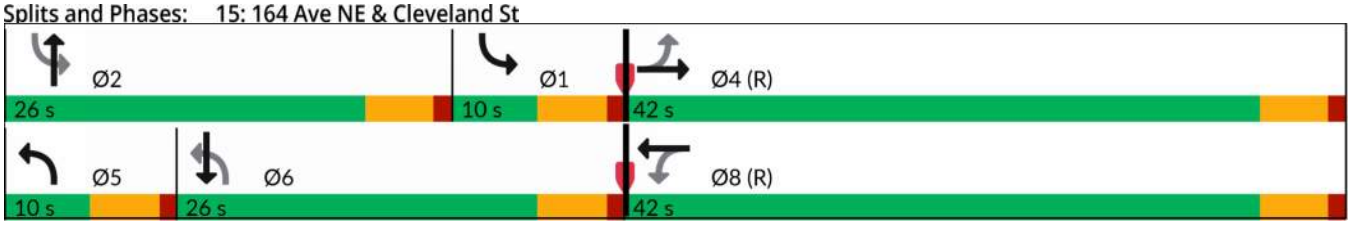
Intersection Summary	
HCM 7th Control Delay, s/veh	20.4
HCM 7th LOS	C

Lanes, Volumes, Timings
15: 164 Ave NE & Cleveland St 03/21/2025

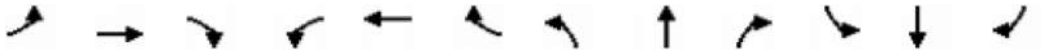
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	243	45	12	89	22	37	163	18	24	133	28
Future Volume (vph)	26	243	45	12	89	22	37	163	18	24	133	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		429			743			151			325	
Travel Time (s)		11.7			20.3			3.4			7.4	
Confl. Peds. (#/hr)	18		30	30		18	43		25	25		43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Parking (#/hr)	0	0	0									
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		8.0	8.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	20.0		10.0	19.0	
Total Split (s)	42.0	42.0		42.0	42.0		10.0	26.0		10.0	26.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		12.8%	33.3%		12.8%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 15: 164 Ave NE & Cleveland St



HCM 7th Signalized Intersection Summary
15: 164 Ave NE & Cleveland St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	243	45	12	89	22	37	163	18	24	133	28
Future Volume (veh/h)	26	243	45	12	89	22	37	163	18	24	133	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	0.92		0.87	0.93		0.86
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1697	1697	1697	1683	1683	1683	1697	1697	1697	1683	1683	1683
Adj Flow Rate, veh/h	28	261	48	13	96	24	40	175	19	26	143	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	94	725	128	110	728	173	207	238	26	185	198	42
Arrive On Green	0.62	0.62	0.62	1.00	1.00	1.00	0.04	0.16	0.16	0.06	0.30	0.30
Sat Flow, veh/h	71	1171	206	96	1176	280	1616	1478	160	1603	1306	274
Grp Volume(v), veh/h	337	0	0	133	0	0	40	0	194	26	0	173
Grp Sat Flow(s),veh/h/ln	1448	0	0	1552	0	0	1616	0	1639	1603	0	1581
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	8.8	0.0	0.0	7.6
Cycle Q Clear(g_c), s	8.7	0.0	0.0	0.0	0.0	0.0	1.6	0.0	8.8	0.0	0.0	7.6
Prop In Lane	0.08		0.14	0.10		0.18	1.00		0.10	1.00		0.17
Lane Grp Cap(c), veh/h	946	0	0	1011	0	0	207	0	264	185	0	240
V/C Ratio(X)	0.36	0.00	0.00	0.13	0.00	0.00	0.19	0.00	0.73	0.14	0.00	0.72
Avail Cap(c_a), veh/h	946	0	0	1011	0	0	251	0	441	244	0	426
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.00	0.99	0.00	0.00	1.00	0.00	1.00	0.95	0.00	0.95
Uniform Delay (d), s/veh	7.3	0.0	0.0	0.0	0.0	0.0	26.7	0.0	31.1	33.2	0.0	25.7
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.3	0.0	0.0	0.4	0.0	3.9	0.3	0.0	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	0.1	0.0	0.0	0.6	0.0	3.7	0.5	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.3	0.0	0.0	0.3	0.0	0.0	27.1	0.0	35.1	33.5	0.0	29.6
LnGrp LOS	A			A			C		D	C		C
Approach Vol, veh/h		337			133			234			199	
Approach Delay, s/veh		8.3			0.3			33.7			30.1	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	17.6		53.3	7.9	16.8		53.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	21.0		37.0	5.0	21.0		37.0				
Max Q Clear Time (g_c+I1), s	2.0	10.8		10.7	3.6	9.6		2.0				
Green Ext Time (p_c), s	0.0	0.5		1.5	0.0	0.5		0.5				

Intersection Summary		
HCM 7th Control Delay, s/veh		18.5
HCM 7th LOS		B

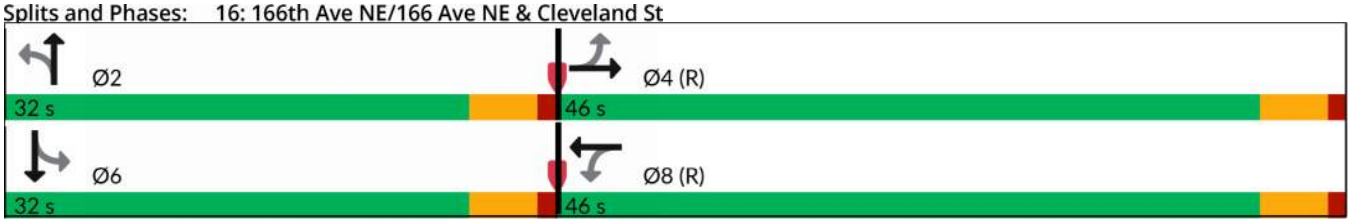
Lanes, Volumes, Timings
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	226	24	29	103	23	14	160	82	6	78	10
Future Volume (vph)	43	226	24	29	103	23	14	160	82	6	78	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	100		125	160		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		743			556			226			372	
Travel Time (s)		20.3			15.2			6.2			8.5	
Confl. Peds. (#/hr)	31		1	1		31	4		79	79		4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA	Free	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		Free	6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	46.0	46.0		46.0	46.0		32.0	32.0		32.0	32.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	

Intersection Summary

Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 16: 166th Ave NE/166 Ave NE & Cleveland St



HCM 7th Signalized Intersection Summary
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	226	24	29	103	23	14	160	82	6	78	10
Future Volume (veh/h)	43	226	24	29	103	23	14	160	82	6	78	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	0.85		1.00	0.88		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1710	1710	1710	1697	1697	1697	1697	1697	1697	1697	1697	1697
Adj Flow Rate, veh/h	45	238	25	31	108	24	15	168	0	6	82	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	172	858	86	210	693	146	257	345		205	288	39
Arrive On Green	1.00	1.00	1.00	0.67	0.67	0.67	0.20	0.20	0.00	0.41	0.41	0.41
Sat Flow, veh/h	178	1284	129	232	1037	219	1000	1697	1438	971	1418	190
Grp Volume(v), veh/h	308	0	0	163	0	0	15	168	0	6	0	93
Grp Sat Flow(s),veh/h/ln	1592	0	0	1488	0	0	1000	1697	1438	971	0	1608
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.8	0.0	0.4	0.0	3.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.8	0.0	0.0	4.0	6.8	0.0	7.2	0.0	3.0
Prop In Lane	0.15		0.08	0.19		0.15	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	1117	0	0	1049	0	0	257	345		205	0	327
V/C Ratio(X)	0.28	0.00	0.00	0.16	0.00	0.00	0.06	0.49		0.03	0.00	0.28
Avail Cap(c_a), veh/h	1117	0	0	1049	0	0	400	587		343	0	557
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.94	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	0.0	0.0	0.0	4.8	0.0	0.0	27.6	27.5	0.0	23.2	0.0	19.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	0.0	0.3	3.8	0.0	0.2	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.9	0.0	0.0	0.3	3.1	0.0	0.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.6	0.0	0.0	5.1	0.0	0.0	28.0	31.3	0.0	23.4	0.0	21.0
LnGrp LOS	A			A			C	C		C		C
Approach Vol, veh/h		308			163			183			99	
Approach Delay, s/veh		0.6			5.1			31.0			21.1	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	20.9	57.1	20.9	57.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	27.0	41.0	27.0	41.0
Max Q Clear Time (g_c+I1), s	8.8	2.0	9.2	4.8
Green Ext Time (p_c), s	1.7	4.2	0.8	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	11.7
HCM 7th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
17: 170 Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	2	13	7	4	47	4	828	2	15	460	97
Future Volume (vph)	142	2	13	7	4	47	4	828	2	15	460	97
Satd. Flow (prot)	0	1772	0	0	1655	0	1787	3573	0	1787	3431	0
Flt Permitted		0.704			0.960		0.434			0.212		
Satd. Flow (perm)	0	1297	0	0	1594	0	793	3573	0	399	3431	0
Satd. Flow (RTOR)		6			49						46	
Confl. Peds. (#/hr)	5		25	25		5	21		31	31		21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	60	0	4	865	0	16	580	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		8.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	24.0		24.0	24.0		18.0	18.0		10.0	19.0	
Total Split (s)	10.0	34.0		24.0	24.0		41.0	41.0		10.0	51.0	
Total Split (%)	11.8%	40.0%		28.2%	28.2%		48.2%	48.2%		11.8%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		None	Min	
Act Effct Green (s)		12.5			12.5		22.0	22.0		23.3	23.3	
Actuated g/C Ratio		0.27			0.27		0.47	0.47		0.50	0.50	
v/c Ratio		0.47			0.13		0.01	0.51		0.04	0.33	
Control Delay (s/veh)		19.5			7.7		9.8	11.0		6.9	7.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		19.5			7.7		9.8	11.0		6.9	7.2	
LOS		B			A		A	B		A	A	
Approach Delay (s/veh)		19.5			7.7			11.0			7.2	
Approach LOS		B			A			B			A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 46.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay (s/veh): 10.4	Intersection LOS: B
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

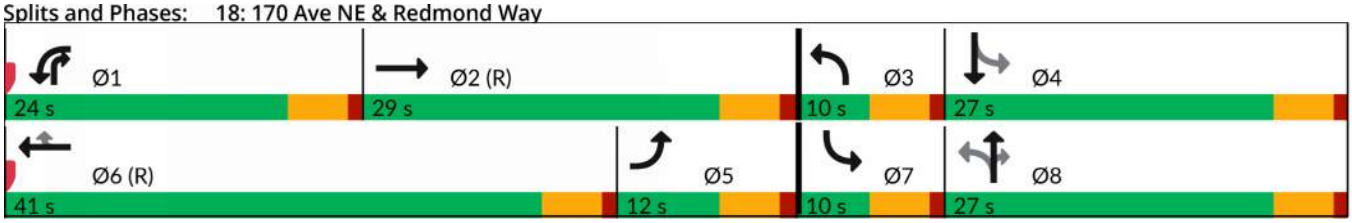
Splits and Phases: 17: 170 Ave NE & NE 76 St

Lanes, Volumes, Timings
18: 170 Ave NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	758	77	347	654	224	27	339	655	134	154	14
Future Volume (vph)	56	758	77	347	654	224	27	339	655	134	154	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	125		0	100		0
Storage Lanes	1		0	2		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			661			498			439	
Travel Time (s)		13.3			15.0			11.3			10.0	
Confl. Peds. (#/hr)	20		6	6		20	15		27	27		15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases						6	8		8	4		
Detector Phase	5	2		1	6	6	3 8	8	1	7 4	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0	6.0	5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0	11.0	10.0	27.0	
Total Split (s)	12.0	29.0		24.0	41.0	41.0	10.0	27.0	24.0	10.0	27.0	
Total Split (%)	13.3%	32.2%		26.7%	45.6%	45.6%	11.1%	30.0%	26.7%	11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 58 (64%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 18: 170 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
18: 170 Ave NE & Redmond Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	758	77	347	654	224	27	339	655	134	154	14
Future Volume (veh/h)	56	758	77	347	654	224	27	339	655	134	154	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	59	798	81	365	688	236	28	357	689	141	162	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	140	1129	115	464	1433	623	347	461	591	216	461	43
Arrive On Green	0.16	0.69	0.69	0.04	0.13	0.13	0.03	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1795	3277	333	3483	3582	1558	1795	1885	1545	1795	1694	157
Grp Volume(v), veh/h	59	436	443	365	688	236	28	357	689	141	0	177
Grp Sat Flow(s),veh/h/ln	1795	1791	1818	1742	1791	1558	1795	1885	1545	1795	0	1851
Q Serve(g_s), s	2.7	13.3	13.3	9.3	16.0	9.0	1.0	15.9	22.0	5.0	0.0	8.1
Cycle Q Clear(g_c), s	2.7	13.3	13.3	9.3	16.0	9.0	1.0	15.9	22.0	5.0	0.0	8.1
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	140	617	626	464	1433	623	347	461	591	216	0	504
V/C Ratio(X)	0.42	0.71	0.71	0.79	0.48	0.38	0.08	0.77	1.17	0.65	0.00	0.35
Avail Cap(c_a), veh/h	140	617	626	735	1433	623	396	461	591	216	0	504
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.97	0.97	0.97	0.66	0.66	0.66	0.85	0.85	0.85	0.43	0.00	0.43
Uniform Delay (d), s/veh	36.2	11.2	11.2	41.7	30.4	15.0	24.4	31.7	28.1	27.7	0.0	33.5
Incr Delay (d2), s/veh	0.7	6.5	6.4	0.7	0.8	1.2	0.0	6.3	90.1	2.4	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.3	4.3	4.3	7.8	3.7	0.4	7.8	26.8	2.5	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.9	17.8	17.7	42.5	31.2	16.2	24.4	38.0	118.2	30.0	0.0	33.6
LnGrp LOS	D	B	B	D	C	B	C	D	F	C		C
Approach Vol, veh/h		938			1289			1074			318	
Approach Delay, s/veh		18.9			31.6			89.1			32.0	
Approach LOS		B			C			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	36.0	7.5	29.5	12.0	41.0	10.0	27.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	19.0	24.0	5.0	22.0	7.0	36.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	11.3	15.3	3.0	10.1	4.7	18.0	7.0	24.0
Green Ext Time (p_c), s	0.7	2.7	0.0	0.3	0.0	4.3	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	45.4
HCM 7th LOS	D

Lanes, Volumes, Timings
19: Bear Creek Crossing & Redmond Way 03/21/2025

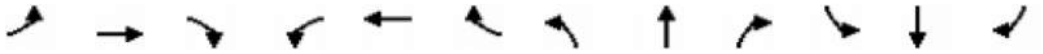
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1375	8	16	1019	141	37	15	46	116	16	52
Future Volume (vph)	89	1375	8	16	1019	141	37	15	46	116	16	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	175		150	0		0	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		661			588			140			177	
Travel Time (s)		15.0			13.4			3.8			4.8	
Confl. Peds. (#/hr)	20		2	2		20	2		20	20		2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	D.P+P	NA		D.P+P	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	4			8		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0		10.0	27.0	
Total Split (s)	14.0	42.0		11.0	39.0	39.0	10.0	27.0		10.0	27.0	
Total Split (%)	15.6%	46.7%		12.2%	43.3%	43.3%	11.1%	30.0%		11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes				Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 19 (21%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Bear Creek Crossing & Redmond Way

HCM 7th Signalized Intersection Summary
19: Bear Creek Crossing & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	1375	8	16	1019	141	37	15	46	116	16	52
Future Volume (veh/h)	89	1375	8	16	1019	141	37	15	46	116	16	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1870	1870	1870
Adj Flow Rate, veh/h	92	1418	8	16	1051	145	38	15	47	120	16	54
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	119	1501	8	158	1551	676	420	88	277	431	90	304
Arrive On Green	0.02	0.14	0.14	0.12	0.58	0.58	0.03	0.22	0.22	0.06	0.24	0.24
Sat Flow, veh/h	1795	3651	21	1795	3582	1561	1810	396	1240	1781	368	1242
Grp Volume(v), veh/h	92	695	731	16	1051	145	38	0	62	120	0	70
Grp Sat Flow(s),veh/h/ln	1795	1791	1881	1795	1791	1561	1810	0	1636	1781	0	1610
Q Serve(g_s), s	4.6	34.6	34.7	0.7	18.4	4.0	1.4	0.0	2.8	4.7	0.0	3.1
Cycle Q Clear(g_c), s	4.6	34.6	34.7	0.7	18.4	4.0	1.4	0.0	2.8	4.7	0.0	3.1
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.76	1.00		0.77
Lane Grp Cap(c), veh/h	119	736	773	158	1551	676	420	0	365	431	0	394
V/C Ratio(X)	0.77	0.94	0.94	0.10	0.68	0.21	0.09	0.00	0.17	0.28	0.00	0.18
Avail Cap(c_a), veh/h	180	736	773	158	1551	676	459	0	400	431	0	394
HCM Platoon Ratio	0.33	0.33	0.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.81	0.81	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	37.9	37.9	36.5	14.7	11.7	24.0	0.0	28.2	25.2	0.0	26.9
Incr Delay (d2), s/veh	3.7	11.6	11.3	0.2	2.0	0.6	0.1	0.0	0.2	0.3	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	18.9	19.7	0.3	6.3	1.4	0.6	0.0	1.1	2.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.0	49.5	49.1	36.7	16.7	12.3	24.1	0.0	28.4	25.4	0.0	27.8
LnGrp LOS	D	D	D	D	B	B	C		C	C		C
Approach Vol, veh/h		1518			1212			100			190	
Approach Delay, s/veh		49.2			16.4			26.8			26.3	
Approach LOS		D			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	42.0	8.1	27.0	11.0	44.0	10.0	25.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	37.0	5.0	22.0	9.0	34.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	2.7	36.7	3.4	5.1	6.6	20.4	6.7	4.8
Green Ext Time (p_c), s	0.0	0.2	0.0	0.2	0.0	5.2	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	33.8
HCM 7th LOS	C

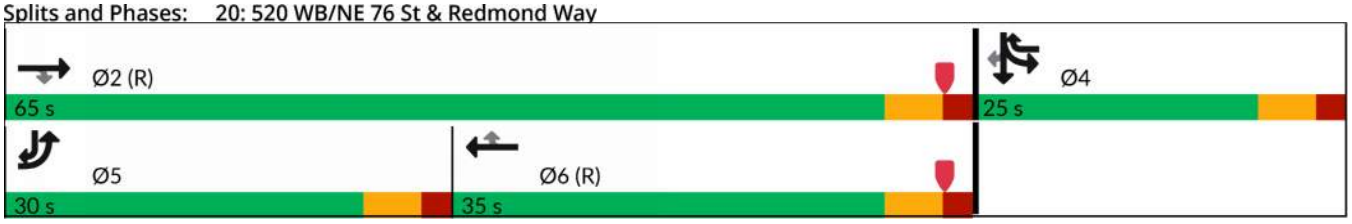
Lanes, Volumes, Timings
20: 520 WB/NE 76 St & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	379	935	230	0	802	332	0	0	0	61	329	374
Future Volume (vph)	379	935	230	0	802	332	0	0	0	61	329	374
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		110	0		0	0		0	400		350
Storage Lanes	2		1	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		588			476			347			459	
Travel Time (s)		8.9			7.2			9.5			12.5	
Confl. Peds. (#/hr)	16					16						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm		NA	pm+ov				Split	NA	pm+ov
Protected Phases	5	2			6	4				4	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	2		6	4				4	4	5
Switch Phase												
Minimum Initial (s)	5.0	7.0	7.0		7.0	5.0				5.0	5.0	5.0
Minimum Split (s)	10.9	12.9	12.9		37.9	10.9				10.9	10.9	10.9
Total Split (s)	30.0	65.0	65.0		35.0	25.0				25.0	25.0	30.0
Total Split (%)	33.3%	72.2%	72.2%		38.9%	27.8%				27.8%	27.8%	33.3%
Yellow Time (s)	3.9	3.9	3.9		3.9	3.9				3.9	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0				2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0				0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9		5.9	5.9				5.9	5.9	5.9
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min		C-Min	None				None	None	None

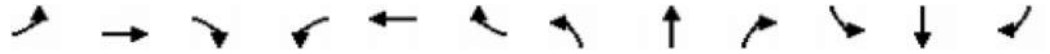
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Red
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 20: 520 WB/NE 76 St & Redmond Way



HCM 7th Signalized Intersection Summary
20: 520 WB/NE 76 St & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	935	230	0	802	332	0	0	0	61	329	374
Future Volume (veh/h)	379	935	230	0	802	332	0	0	0	61	329	374
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1885	1885				1870	1870	1870
Adj Flow Rate, veh/h	391	964	237	0	827	342				63	339	386
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	1	1				2	2	2
Cap, veh/h	492	2352	1041	0	1611	1045				378	397	560
Arrive On Green	0.28	1.00	1.00	0.00	0.90	0.90				0.21	0.21	0.21
Sat Flow, veh/h	3483	3582	1586	0	3676	1569				1781	1870	1585
Grp Volume(v), veh/h	391	964	237	0	827	342				63	339	386
Grp Sat Flow(s),veh/h/ln	1742	1791	1586	0	1791	1569				1781	1870	1585
Q Serve(g_s), s	9.3	0.0	0.0	0.0	3.9	2.1				2.6	15.7	18.7
Cycle Q Clear(g_c), s	9.3	0.0	0.0	0.0	3.9	2.1				2.6	15.7	18.7
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	492	2352	1041	0	1611	1045				378	397	560
V/C Ratio(X)	0.79	0.41	0.23	0.00	0.51	0.33				0.17	0.85	0.69
Avail Cap(c_a), veh/h	933	2352	1041	0	1611	1045				378	397	560
HCM Platoon Ratio	2.00	2.00	2.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.00	0.87	0.87				1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	0.0	0.0	0.0	2.7	1.0				29.0	34.1	24.9
Incr Delay (d2), s/veh	1.8	0.3	0.3	0.0	1.0	0.7				0.2	16.4	3.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.1	0.1	0.0	1.0	0.9				1.1	8.8	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	0.3	0.3	0.0	3.7	1.7				29.2	50.5	28.4
LnGrp LOS	C	A	A		A	A				C	D	C
Approach Vol, veh/h		1592			1169						788	
Approach Delay, s/veh		8.3			3.1						38.0	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		65.0		25.0	18.6	46.4						
Change Period (Y+Rc), s		5.9		5.9	5.9	5.9						
Max Green Setting (Gmax), s		59.1		19.1	24.1	29.1						
Max Q Clear Time (g_c+I1), s		2.0		20.7	11.3	5.9						
Green Ext Time (p_c), s		11.1		0.0	1.4	8.6						

Intersection Summary												
HCM 7th Control Delay, s/veh			13.2									
HCM 7th LOS			B									

Notes
User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

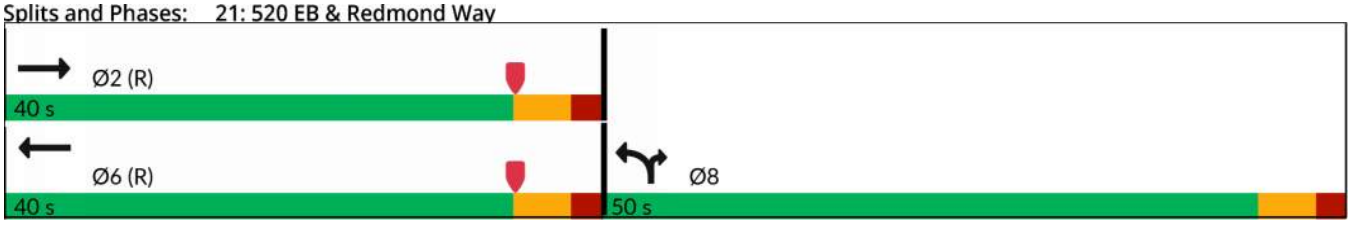
Lanes, Volumes, Timings
21: 520 EB & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	998	0	0	781	370	1187
Future Volume (vph)	998	0	0	781	370	1187
Satd. Flow (prot)	5136	0	0	3574	3467	2814
Flt Permitted					0.950	
Satd. Flow (perm)	5136	0	0	3574	3467	2814
Satd. Flow (RTOR)						44
Confl. Peds. (#/hr)		8	8			16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1040	0	0	814	385	1236
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	10.0			10.0	5.0	5.0
Minimum Split (s)	37.9			15.9	37.9	37.9
Total Split (s)	40.0			40.0	50.0	50.0
Total Split (%)	44.4%			44.4%	55.6%	55.6%
Yellow Time (s)	3.9			3.9	3.9	3.9
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.9			5.9	5.9	5.9
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	34.2			34.2	44.0	44.0
Actuated g/C Ratio	0.38			0.38	0.49	0.49
v/c Ratio	0.53			0.60	0.23	0.88
Control Delay (s/veh)	11.8			22.6	13.4	29.0
Queue Delay	0.0			0.0	0.0	0.0
Total Delay (s/veh)	11.8			22.6	13.4	29.0
LOS	B			C	B	C
Approach Delay (s/veh)	11.8			22.6	25.3	
Approach LOS	B			C	C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay (s/veh): 20.6 Intersection LOS: C
Intersection Capacity Utilization 79.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 21: 520 EB & Redmond Way



Lanes, Volumes, Timings
22: 164 Ave NE & NE 76 St 03/21/2025

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	2	45	143	31	1	19	82	86	2	43	109	39
Future Volume (vph)	2	45	143	31	1	19	82	86	2	43	109	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			25				25				25	
Link Distance (ft)			539				724				311	
Travel Time (s)			14.7				19.7				8.5	
Confl. Peds. (#/hr)	122	1		84	7	84		1	84	122		7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control			Yield				Yield				Yield	

Intersection Summary
Area Type: Other
Control Type: Roundabout

Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	3	65	97	23
Future Volume (vph)	3	65	97	23
Ideal Flow (vphpl)	1900	1900	1900	1900
Link Speed (mph)			25	
Link Distance (ft)			149	
Travel Time (s)			4.1	
Confl. Peds. (#/hr)	1	7		122
Peak Hour Factor	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	3%	3%	3%	3%
Shared Lane Traffic (%)				
Sign Control			Yield	

Intersection Summary

Intersection	
Intersection Delay, s/veh	5.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	263	224	229	223
Demand Flow Rate, veh/h	266	224	234	229
Vehicles Circulating, veh/h	227	248	313	178
Vehicles Exiting, veh/h	180	299	180	294
Ped Vol Crossing Leg, #/h	122	7	84	1
Ped Cap Adj	0.977	0.999	0.988	1.000
Approach Delay, s/veh	5.8	5.3	6.0	5.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	266	224	234	229
Cap Entry Lane, veh/h	1095	1071	1003	1151
Entry HV Adj Factor	0.990	1.000	0.980	0.971
Flow Entry, veh/h	263	224	229	222
Cap Entry, veh/h	1058	1070	972	1118
V/C Ratio	0.249	0.209	0.236	0.199
Control Delay, s/veh	5.8	5.3	6.0	5.0
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	1

Lanes, Volumes, Timings
23: 166th Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	144	39	23	74	63	20	89	18	17	73	43
Future Volume (vph)	103	144	39	23	74	63	20	89	18	17	73	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			10			10	
Link Distance (ft)		724			1313			308			226	
Travel Time (s)		19.7			35.8			21.0			15.4	
Confl. Peds. (#/hr)	5		49	49		5	9		72	72		9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Parking (#/hr)	0	0	0				0	0	0			
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	103	144	39	23	74	63	20	89	18	17	73	43
Future Vol, veh/h	103	144	39	23	74	63	20	89	18	17	73	43
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	0
Mvmt Flow	110	153	41	24	79	67	21	95	19	18	78	46
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	11.3	9.4	9.8	9.3
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	36%	14%	19%	0%
Vol Thru, %	70%	50%	46%	81%	0%
Vol Right, %	14%	14%	39%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	127	286	160	90	43
LT Vol	20	103	23	17	0
Through Vol	89	144	74	73	0
RT Vol	18	39	63	0	43
Lane Flow Rate	135	304	170	96	46
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.203	0.409	0.233	0.159	0.066
Departure Headway (Hd)	5.408	4.839	4.923	5.99	5.185
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	666	733	734	601	693
Service Time	3.422	2.935	2.923	3.703	2.898
HCM Lane V/C Ratio	0.203	0.415	0.232	0.16	0.066
HCM Control Delay, s/veh	9.8	11.3	9.4	9.8	8.3
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.8	2	0.9	0.6	0.2

Lanes, Volumes, Timings
24: 164th Ave NE & NE 74th St 03/21/2025

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	74	28	28	63	82	63
Future Volume (vph)	74	28	28	63	82	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10			10	10	
Link Distance (ft)	321			415	239	
Travel Time (s)	21.9			28.3	16.3	
Confl. Peds. (#/hr)	75	214	36			36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Parking (#/hr)	0	0	0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	74	28	28	63	82	63
Future Vol, veh/h	74	28	28	63	82	63
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	83	31	31	71	92	71
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8.2	8	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	31%	73%	0%
Vol Thru, %	69%	0%	57%
Vol Right, %	0%	27%	43%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	91	102	145
LT Vol	28	74	0
Through Vol	63	0	82
RT Vol	0	28	63
Lane Flow Rate	102	115	163
Geometry Grp	1	1	1
Degree of Util (X)	0.125	0.142	0.183
Departure Headway (Hd)	4.393	4.451	4.047
Convergence, Y/N	Yes	Yes	Yes
Cap	819	808	891
Service Time	2.405	2.466	2.047
HCM Lane V/C Ratio	0.125	0.142	0.183
HCM Control Delay, s/veh	8	8.2	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.5	0.7

Lanes, Volumes, Timings
25: 166th Ave NE/166th Ave NE & NE 74th St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	38	75	41	40	74
Future Volume (vph)	48	38	75	41	40	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10		10			10
Link Distance (ft)	375		216			226
Travel Time (s)	25.6		14.7			15.4
Confl. Peds. (#/hr)	53	105		34	34	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	3%	3%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop		Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	38	75	41	40	74
Future Vol, veh/h	48	38	75	41	40	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	0	0	3	3
Mvmt Flow	52	41	82	45	43	80
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	7.8	7.7	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	35%
Vol Thru, %	65%	0%	65%
Vol Right, %	35%	44%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	116	86	114
LT Vol	0	48	40
Through Vol	75	0	74
RT Vol	41	38	0
Lane Flow Rate	126	93	124
Geometry Grp	1	1	1
Degree of Util (X)	0.138	0.112	0.147
Departure Headway (Hd)	3.947	4.306	4.282
Convergence, Y/N	Yes	Yes	Yes
Cap	894	838	827
Service Time	2.037	2.306	2.364
HCM Lane V/C Ratio	0.141	0.111	0.15
HCM Control Delay, s/veh	7.7	7.8	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.4	0.5

Lanes, Volumes, Timings
26: Bear Creek Pkwy & 164th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	110	766	467	30	60	65
Future Volume (vph)	110	766	467	30	60	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			150	0	125
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		500	450		401	
Travel Time (s)		11.4	10.2		27.3	
Confl. Peds. (#/hr)	12			12		18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Parking (#/hr)		0				
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	110	766	467	30	60	65
Future Vol, veh/h	110	766	467	30	60	65
Conflicting Peds, #/hr	12	0	0	12	0	18
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	125
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	115	798	486	31	63	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	530	0	-	0	1526	516
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	1027	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1043	-	-	-	130	559
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	345	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1032	-	-	-	113	545
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	342	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.12	0	18.68
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1032	-	-	-	239	545
HCM Lane V/C Ratio	0.111	-	-	-	0.262	0.124
HCM Ctrl Dly (s/v)	8.9	-	-	-	25.3	12.5
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1	0.4

Lanes, Volumes, Timings
27: Bear Creek Pkwy & 166th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	77	751	392	59	44	106
Future Volume (vph)	77	751	392	59	44	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	1%		-1%	
Storage Length (ft)	200			150	0	150
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		220	462		360	
Travel Time (s)		5.0	10.5		24.5	
Confl. Peds. (#/hr)	22			22		27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	77	751	392	59	44	106
Future Vol, veh/h	77	751	392	59	44	106
Conflicting Peds, #/hr	22	0	0	22	0	27
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	-1	1	-	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	81	791	413	62	46	112

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	497	0	-	0	1387	462
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	953	-
Critical Hdwy	4.11	-	-	-	6.23	6.13
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	-	-	-	-	5.23	-
Follow-up Hdwy	2.209	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1072	-	-	-	169	606
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	393	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1053	-	-	-	151	581
Mov Cap-2 Maneuver	-	-	-	-	279	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	386	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.81	0	14.95
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1053	-	-	-	279	581
HCM Lane V/C Ratio	0.077	-	-	-	0.166	0.192
HCM Ctrl Dly (s/v)	8.7	-	-	-	20.5	12.7
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6	0.7

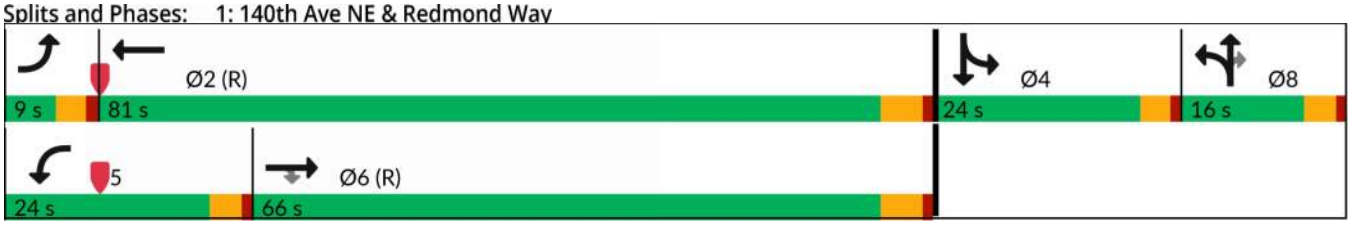
2030 No Action

Lanes, Volumes, Timings
1: 140th Ave NE & Redmond Way 03/21/2025

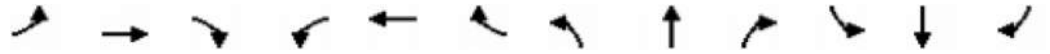
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1214	108	153	1574	7	82	10	52	17	8	23
Future Volume (vph)	31	1214	108	153	1574	7	82	10	52	17	8	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			4%			0%			7%	
Storage Length (ft)	125		250	250		0	0		200	0		30
Storage Lanes	1		1	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			35			25	
Link Distance (ft)		535			1832			797			317	
Travel Time (s)		9.1			31.2			15.5			8.6	
Confl. Peds. (#/hr)	8		2	2		8	11					11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6						8			
Detector Phase	1	6	6	5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0		9.0	9.0	9.0	24.0	24.0	
Total Split (s)	9.0	66.0	66.0	24.0	81.0		16.0	16.0	16.0	24.0	24.0	
Total Split (%)	6.9%	50.8%	50.8%	18.5%	62.3%		12.3%	12.3%	12.3%	18.5%	18.5%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0			4.0	4.0		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	

Intersection Summary
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: 140th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
1: 140th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1214	108	153	1574	7	82	10	52	17	8	23
Future Volume (veh/h)	31	1214	108	153	1574	7	82	10	52	17	8	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1791	1791	1791	1900	1900	1900	1611	1611	1611
Adj Flow Rate, veh/h	34	1320	0	166	1711	8	89	11	0	18	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	52	2438		192	2522	12	110	14		50	25	
Arrive On Green	0.03	0.64	0.00	0.11	0.73	0.73	0.07	0.07	0.00	0.05	0.05	0.00
Sat Flow, veh/h	1908	3806	1697	1706	3473	16	1619	200	1610	1040	520	0
Grp Volume(v), veh/h	34	1320	0	166	838	881	100	0	0	27	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1697	1706	1701	1788	1819	0	1610	1559	0	0
Q Serve(g_s), s	2.3	24.8	0.0	12.4	34.5	34.6	7.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	2.3	24.8	0.0	12.4	34.5	34.6	7.0	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.89		1.00	0.67		0.00
Lane Grp Cap(c), veh/h	52	2438		192	1235	1298	124	0		74	0	
V/C Ratio(X)	0.66	0.54		0.86	0.68	0.68	0.81	0.00		0.36	0.00	
Avail Cap(c_a), veh/h	73	2438		262	1235	1298	168	0		240	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.6	12.9	0.0	56.7	9.6	9.6	59.7	0.0	0.0	60.0	0.0	0.0
Incr Delay (d2), s/veh	13.1	0.9	0.0	19.2	3.0	2.9	18.2	0.0	0.0	2.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	10.0	0.0	6.3	11.9	12.5	3.9	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.8	13.7	0.0	75.9	12.6	12.5	78.0	0.0	0.0	62.2	0.0	0.0
LnGrp LOS	E	B		E	B	B	E			E		
Approach Vol, veh/h		1354			1885			100			27	
Approach Delay, s/veh		15.3			18.1			78.0			62.2	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	99.4		10.2	18.6	88.3		12.9				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	5.0	76.0		20.0	20.0	61.0		12.0				
Max Q Clear Time (g_c+I1), s	4.3	36.6		4.2	14.4	26.8		9.0				
Green Ext Time (p_c), s	0.0	25.9		0.0	0.2	17.4		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	19.1	
HCM 7th LOS	B	

Notes

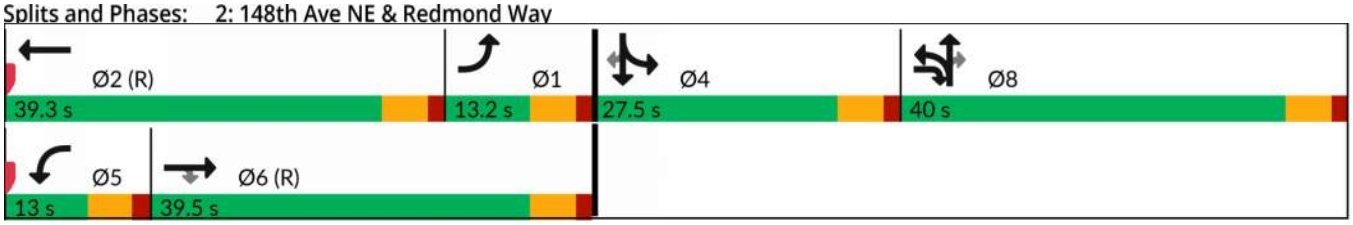
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
2: 148th Ave NE & Redmond Way 03/21/2025

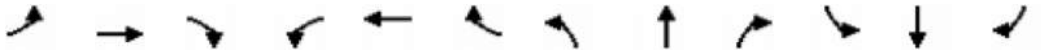
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	896	185	175	858	11	654	649	380	33	395	278
Future Volume (vph)	179	896	185	175	858	11	654	649	380	33	395	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-3%			3%	
Storage Length (ft)	375		150	250		0	275		200	200		250
Storage Lanes	2		1	2		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		957			1580			2623			1894	
Travel Time (s)		16.3			26.9			44.7			32.3	
Confl. Peds. (#/hr)	4		4	4		4			9	9		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)							35%					
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	1	6	8	5	2		8	8		4	4	
Permitted Phases			6						8			4
Detector Phase	1	6	8	5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	27.5	24.5	10.5	25.5		24.5	24.5	24.5	27.5	27.5	27.5
Total Split (s)	13.2	39.5	40.0	13.0	39.3		40.0	40.0	40.0	27.5	27.5	27.5
Total Split (%)	11.0%	32.9%	33.3%	10.8%	32.8%		33.3%	33.3%	33.3%	22.9%	22.9%	22.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 87 (73%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 2: 148th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
2: 148th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	896	185	175	858	11	654	649	380	33	395	278
Future Volume (veh/h)	179	896	185	175	858	11	654	649	380	33	395	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	2003	2003	2003	1817	1817	1817
Adj Flow Rate, veh/h	192	963	199	188	923	12	784	585	0	35	425	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	338	1182	1013	218	1020	13	1097	576		270	539	
Arrive On Green	0.09	0.31	0.31	0.02	0.09	0.09	0.29	0.29	0.00	0.05	0.05	0.00
Sat Flow, veh/h	3701	3806	1691	3483	3620	47	3815	2003	1697	1731	3453	1540
Grp Volume(v), veh/h	192	963	199	188	457	478	784	585	0	35	425	0
Grp Sat Flow(s),veh/h/ln	1850	1903	1691	1742	1791	1876	1908	2003	1697	1731	1726	1540
Q Serve(g_s), s	6.0	28.0	6.4	6.5	30.3	30.3	22.1	34.5	0.0	2.3	14.6	0.0
Cycle Q Clear(g_c), s	6.0	28.0	6.4	6.5	30.3	30.3	22.1	34.5	0.0	2.3	14.6	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	1182	1013	218	504	529	1097	576		270	539	
V/C Ratio(X)	0.57	0.81	0.20	0.86	0.91	0.91	0.71	1.02		0.13	0.79	
Avail Cap(c_a), veh/h	338	1182	1013	218	504	529	1097	576		317	633	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.67	0.67	0.67	0.20	0.20	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	52.2	38.2	11.0	58.3	52.8	52.8	38.3	42.8	0.0	49.1	55.0	0.0
Incr Delay (d2), s/veh	2.2	6.2	0.4	20.6	16.5	15.9	0.5	20.9	0.0	0.2	5.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	13.7	4.6	3.5	16.8	17.5	10.1	19.8	0.0	1.0	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.5	44.4	11.4	78.9	69.3	68.7	38.8	63.6	0.0	49.3	60.5	0.0
LnGrp LOS	D	D	B	E	E	E	D	F		D	E	
Approach Vol, veh/h		1354			1123			1369			460	
Approach Delay, s/veh		41.0			70.7			49.4			59.6	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	39.3		24.2	13.0	42.8		40.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	7.7	33.8		22.0	7.5	34.0		34.5				
Max Q Clear Time (g_c+I1), s	8.0	32.3		16.6	8.5	30.0		36.5				
Green Ext Time (p_c), s	0.0	0.7		1.6	0.0	2.1		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	53.4
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

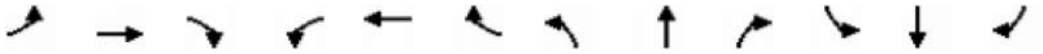
Lanes, Volumes, Timings
3: Willows Rd NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1371	14	26	1024	266	7	6	20	593	17	16
Future Volume (vph)	16	1371	14	26	1024	266	7	6	20	593	17	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%			5%	
Storage Length (ft)	150		0	125		30	0		0	275		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		1580			850			188			922	
Travel Time (s)		26.9			14.5			5.1			18.0	
Confl. Peds. (#/hr)	12		4	4		12	19		5	5		19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)										47%		
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases												
Detector Phase	1	6		5	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	12.0		5.0	12.0		5.0	5.0		6.0	6.0	
Minimum Split (s)	11.0	19.0		10.0	19.0		23.0	23.0		25.0	25.0	
Total Split (s)	11.0	56.0		10.0	55.0		23.0	23.0		31.0	31.0	
Total Split (%)	9.2%	46.7%		8.3%	45.8%		19.2%	19.2%		25.8%	25.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 32 (27%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willows Rd NE & Redmond Way

HCM 7th Signalized Intersection Summary
3: Willows Rd NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1371	14	26	1024	266	7	6	20	593	17	16
Future Volume (veh/h)	16	1371	14	26	1024	266	7	6	20	593	17	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.91	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	1900	1900	1900	1738	1738	1738
Adj Flow Rate, veh/h	17	1474	15	28	1101	0	8	6	22	667	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	41	1640	17	234	1911		22	17	61	714	375	0
Arrive On Green	0.01	0.14	0.14	0.26	1.00	0.00	0.06	0.06	0.06	0.22	0.00	0.00
Sat Flow, veh/h	1908	3859	39	1795	3676	0	354	265	973	3310	1738	0
Grp Volume(v), veh/h	17	726	763	28	1101	0	36	0	0	667	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1995	1795	1791	0	1592	0	0	1655	1738	0
Q Serve(g_s), s	1.1	45.1	45.1	1.4	0.0	0.0	2.6	0.0	0.0	23.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	45.1	45.1	1.4	0.0	0.0	2.6	0.0	0.0	23.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.00	0.22		0.61	1.00		0.00
Lane Grp Cap(c), veh/h	41	809	848	234	1911		99	0	0	714	375	0
V/C Ratio(X)	0.41	0.90	0.90	0.12	0.58		0.36	0.00	0.00	0.93	0.00	0.00
Avail Cap(c_a), veh/h	95	809	848	234	1911		239	0	0	717	377	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.72	0.72	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.8	49.0	49.1	39.1	0.0	0.0	54.0	0.0	0.0	46.2	0.0	0.0
Incr Delay (d2), s/veh	2.3	7.9	7.6	0.1	0.9	0.0	0.8	0.0	0.0	19.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	24.6	25.8	0.6	0.2	0.0	1.1	0.0	0.0	11.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.1	56.9	56.7	39.2	0.9	0.0	54.8	0.0	0.0	65.9	0.0	0.0
LnGrp LOS	E	E	E	D	A		D			E		
Approach Vol, veh/h		1506			1129			36			667	
Approach Delay, s/veh		56.8			1.9			54.8			65.9	
Approach LOS		E			A			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	69.0		30.9	20.6	56.0		12.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	50.0		26.0	5.0	51.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0		25.7	3.4	47.1		4.6				
Green Ext Time (p_c), s	0.0	20.8		0.1	0.0	3.5		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	40.0	
HCM 7th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1355	642	217	958	363	194
Future Volume (vph)	1355	642	217	958	363	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	-4%	
Storage Length (ft)		125	150		0	75
Storage Lanes		1	2		1	0
Taper Length (ft)			25		25	
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	35	
Link Distance (ft)	850			951	587	
Travel Time (s)	19.3			21.6	11.4	
Confl. Peds. (#/hr)		14	14			2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov	Prot	NA	Prot	
Protected Phases	6	4	5	2	4	
Permitted Phases		6				
Detector Phase	6	4	5	2	4	
Switch Phase						
Minimum Initial (s)	8.0	6.0	5.0	20.0	6.0	
Minimum Split (s)	22.0	25.0	10.0	25.0	25.0	
Total Split (s)	57.0	48.0	15.0	72.0	48.0	
Total Split (%)	47.5%	40.0%	12.5%	60.0%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: West Lake Sammamish Pkwy NE & Redmond Way

HCM 7th Signalized Intersection Summary
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1355	642	217	958	363	194
Future Volume (veh/h)	1355	642	217	958	363	194
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2003	2003	1832	1832	2027	2027
Adj Flow Rate, veh/h	1369	648	219	968	367	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	1649	724	772	2448	411	
Arrive On Green	0.87	0.87	0.46	1.00	0.21	0.00
Sat Flow, veh/h	3906	1670	3385	3573	1926	0
Grp Volume(v), veh/h	1369	648	219	968	368	0
Grp Sat Flow(s),veh/h/ln	1903	1670	1693	1741	1931	0
Q Serve(g_s), s	20.5	27.7	4.8	0.0	22.2	0.0
Cycle Q Clear(g_c), s	20.5	27.7	4.8	0.0	22.2	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	1649	724	772	2448	412	
V/C Ratio(X)	0.83	0.90	0.28	0.40	0.89	
Avail Cap(c_a), veh/h	1649	724	772	2448	692	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.88	0.88	0.93	0.00
Uniform Delay (d), s/veh	5.9	6.4	26.5	0.0	45.8	0.0
Incr Delay (d2), s/veh	2.9	10.0	0.2	0.4	7.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.7	1.9	0.1	11.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.8	16.4	26.7	0.4	53.6	0.0
LnGrp LOS	A	B	C	A	D	
Approach Vol, veh/h	2017			1187	368	
Approach Delay, s/veh	11.3			5.3	53.6	
Approach LOS	B			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		89.4		30.6	32.4	57.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		67.0		43.0	10.0	52.0
Max Q Clear Time (g_c+I1), s		2.0		24.2	6.8	29.7
Green Ext Time (p_c), s		5.6		1.4	0.3	12.3

Intersection Summary	
HCM 7th Control Delay, s/veh	13.6
HCM 7th LOS	B

Notes

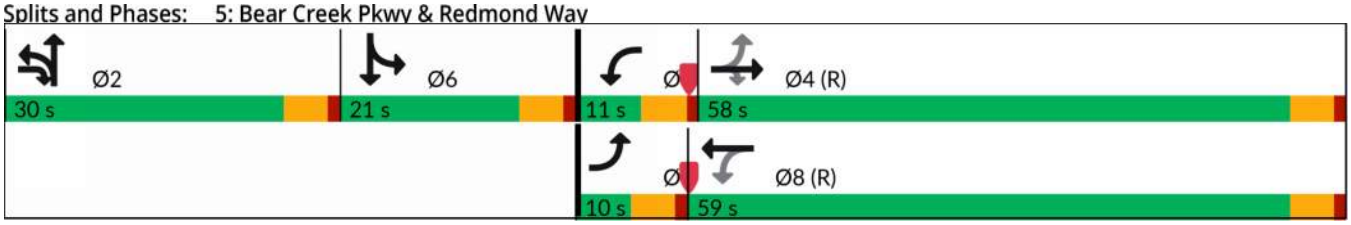
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: Bear Creek Pkwy & Redmond Way 03/21/2025

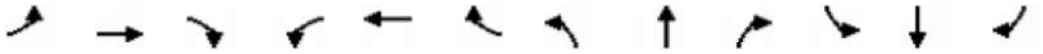
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1000	512	72	927	20	271	5	81	24	6	19
Future Volume (vph)	11	1000	512	72	927	20	271	5	81	24	6	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-4%			0%			0%			0%	
Storage Length (ft)	150		175	150		0	125		0	0		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		951			828			488			167	
Travel Time (s)		21.6			18.8			11.1			4.6	
Confl. Peds. (#/hr)	9		15	15		9	9		19	19		9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							32%					
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases	4		4	8								
Detector Phase	7	4	2	3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	21.0		24.0	24.0		21.0	21.0	
Total Split (s)	10.0	58.0	30.0	11.0	59.0		30.0	30.0		21.0	21.0	
Total Split (%)	8.3%	48.3%	25.0%	9.2%	49.2%		25.0%	25.0%		17.5%	17.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes				
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bear Creek Pkwy & Redmond Way



HCM 7th Signalized Intersection Summary
5: Bear Creek Pkwy & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1000	512	72	927	20	271	5	81	24	6	19
Future Volume (veh/h)	11	1000	512	72	927	20	271	5	81	24	6	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2042	2042	2042	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1031	528	74	956	21	184	138	84	25	6	20
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	378	2264	1257	323	2181	48	272	164	100	111	22	73
Arrive On Green	0.03	1.00	1.00	0.04	0.61	0.61	0.15	0.15	0.15	0.06	0.06	0.06
Sat Flow, veh/h	1945	3880	1709	1795	3582	79	1810	1088	662	1810	356	1187
Grp Volume(v), veh/h	11	1031	528	74	478	499	184	0	222	25	0	26
Grp Sat Flow(s),veh/h/ln	1945	1940	1709	1795	1791	1870	1810	0	1750	1810	0	1543
Q Serve(g_s), s	0.3	0.0	0.0	2.0	17.1	17.1	11.5	0.0	14.8	1.6	0.0	1.9
Cycle Q Clear(g_c), s	0.3	0.0	0.0	2.0	17.1	17.1	11.5	0.0	14.8	1.6	0.0	1.9
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.38	1.00		0.77
Lane Grp Cap(c), veh/h	378	2264	1257	323	1090	1138	272	0	263	111	0	95
V/C Ratio(X)	0.03	0.46	0.42	0.23	0.44	0.44	0.68	0.00	0.84	0.22	0.00	0.27
Avail Cap(c_a), veh/h	434	2264	1257	344	1090	1138	377	0	365	241	0	206
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	8.9	12.5	12.5	48.2	0.0	49.6	53.6	0.0	53.8
Incr Delay (d2), s/veh	0.0	0.3	0.4	0.1	1.0	0.9	2.2	0.0	11.0	1.0	0.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.2	0.8	6.9	7.2	5.4	0.0	7.3	0.8	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.5	0.3	0.4	9.1	13.5	13.5	50.4	0.0	60.6	54.6	0.0	55.3
LnGrp LOS	B	A	A	A	B	B	D		E	D		E
Approach Vol, veh/h		1570			1051			406			51	
Approach Delay, s/veh		0.4			13.2			56.0			55.0	
Approach LOS		A			B			E			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	23.0	9.6	75.0	12.4	6.5	78.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	6.0	53.0	16.0	5.0	54.0
Max Q Clear Time (g_c+I1), s	16.8	4.0	2.0	3.9	2.3	19.1
Green Ext Time (p_c), s	0.9	0.0	7.9	0.1	0.0	3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	13.0
HCM 7th LOS	B

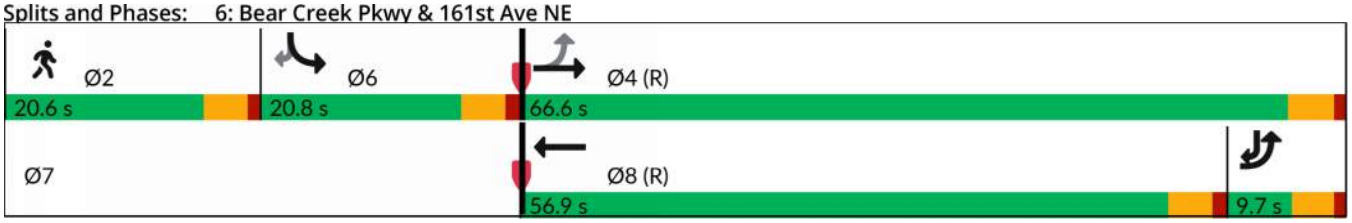
Notes
User approved volume balancing among the lanes for turning movement.

Lanes, Volumes, Timings
6: Bear Creek Pkwy & 161st Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	33	484	319	190	110	80	
Future Volume (vph)	33	484	319	190	110	80	
Satd. Flow (prot)	1787	1693	1501	0	1787	1599	
Flt Permitted	0.337				0.950		
Satd. Flow (perm)	634	1693	1501	0	1612	1445	
Satd. Flow (RTOR)			38			91	
Confl. Peds. (#/hr)	48			48	29	23	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	
Parking (#/hr)		0	0	0			
Shared Lane Traffic (%)							
Lane Group Flow (vph)	38	550	579	0	125	91	
Turn Type	pm+pt	NA	NA		Prot	pm+ov	
Protected Phases	7	4	8		6	7	2
Permitted Phases	4					6	
Detector Phase	7	4	8		6	7	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.4	9.6	20.6		20.6	9.4	20.6
Total Split (s)	9.7	66.6	56.9		20.8	9.7	20.6
Total Split (%)	9.0%	61.7%	52.7%		19.3%	9.0%	19%
Yellow Time (s)	3.4	3.6	3.6		3.6	3.4	3.6
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.4	4.6	4.6		4.6	4.4	
Lead/Lag	Lag		Lead		Lag	Lag	Lead
Lead-Lag Optimize?							
Recall Mode	None	C-Max	C-Max		None	None	None
Act Effct Green (s)	73.9	73.7	65.9		12.7	18.2	
Actuated g/C Ratio	0.68	0.68	0.61		0.12	0.17	
v/c Ratio	0.08	0.48	0.62		0.60	0.28	
Control Delay (s/veh)	10.0	12.5	17.3		56.3	6.8	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	10.0	12.5	17.3		56.3	6.8	
LOS	A	B	B		E	A	
Approach Delay (s/veh)		12.4	17.3		35.5		
Approach LOS		B	B		D		

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 6 (6%), Referenced to phase 4:EBTL and 8:WBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay (s/veh): 18.0	Intersection LOS: B
Intersection Capacity Utilization 47.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Bear Creek Pkwy & 161st Ave NE

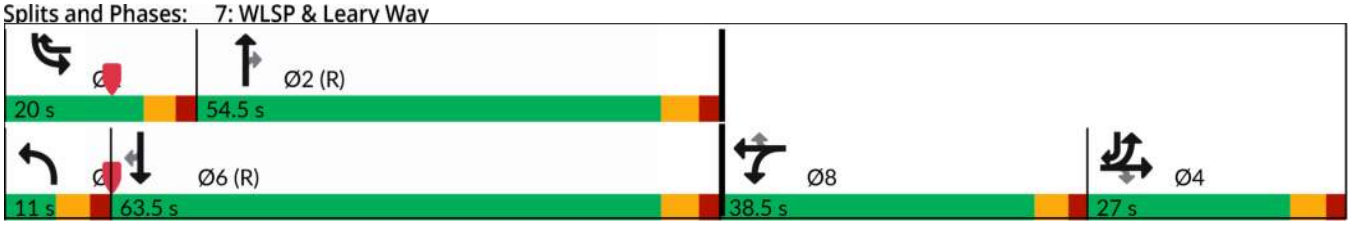


Lanes, Volumes, Timings
7: WLSP & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	287	11	213	277	486	87	15	1013	1150	209	876	584
Future Volume (vph)	287	11	213	277	486	87	15	1013	1150	209	876	584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-6%			3%			0%			0%	
Storage Length (ft)	0		175	200		150	200		275	175		0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		718			834			1781			1175	
Travel Time (s)		16.3			19.0			30.4			20.0	
Confl. Peds. (#/hr)	34					34			3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)				11%								
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	4	4		8	8	1	5	2		1	6	4
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	1	5	2	2	1	6	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	7.0	5.0	10.0	10.0	7.0	10.0	5.0
Minimum Split (s)	10.9	10.9	10.9	38.5	38.5	12.5	10.5	33.9	33.9	12.5	15.9	10.9
Total Split (s)	27.0	27.0	27.0	38.5	38.5	20.0	11.0	54.5	54.5	20.0	63.5	27.0
Total Split (%)	19.3%	19.3%	19.3%	27.5%	27.5%	14.3%	7.9%	38.9%	38.9%	14.3%	45.4%	19.3%
Yellow Time (s)	3.9	3.9	3.9	3.5	3.5	3.5	3.5	3.9	3.9	3.5	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.9	5.9	5.5	5.5	5.5	5.5	5.9	5.9	5.5	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	None

Intersection Summary
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 92 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 7: WLSP & Leary Way



HCM 7th Signalized Intersection Summary
7: WLSP & Leary Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	11	213	277	486	87	15	1013	1150	209	876	584
Future Volume (veh/h)	287	11	213	277	486	87	15	1013	1150	209	876	584
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2076	2076	2076	1817	1817	1817	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	12	224	268	546	92	16	1066	0	220	922	615
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	287	11	247	374	785	476	29	1304		184	1613	957
Arrive On Green	0.15	0.15	0.15	0.22	0.22	0.22	0.01	0.12	0.00	0.10	0.45	0.45
Sat Flow, veh/h	1905	76	1640	1731	3635	1467	1781	3554	1585	1781	3554	1582
Grp Volume(v), veh/h	314	0	224	268	546	92	16	1066	0	220	922	615
Grp Sat Flow(s),veh/h/ln	1981	0	1640	1731	1817	1467	1781	1777	1585	1781	1777	1582
Q Serve(g_s), s	21.1	0.0	18.8	20.1	19.4	6.4	1.3	41.0	0.0	14.5	26.8	35.2
Cycle Q Clear(g_c), s	21.1	0.0	18.8	20.1	19.4	6.4	1.3	41.0	0.0	14.5	26.8	35.2
Prop In Lane	0.96		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	0	247	374	785	476	29	1304		184	1613	957
V/C Ratio(X)	1.05	0.00	0.91	0.72	0.70	0.19	0.54	0.82		1.19	0.57	0.64
Avail Cap(c_a), veh/h	299	0	247	408	857	505	70	1304		184	1613	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.94	0.94	0.31	0.31	0.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	59.5	0.0	58.5	50.9	50.6	34.6	69.1	57.0	0.0	62.7	28.2	17.9
Incr Delay (d2), s/veh	66.4	0.0	33.5	5.8	2.4	0.3	4.7	1.9	0.0	124.5	1.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	0.0	10.1	9.4	9.1	2.3	0.6	19.9	0.0	12.9	11.4	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	125.8	0.0	91.9	56.7	53.0	34.8	73.8	58.8	0.0	187.2	29.5	20.9
LnGrp LOS	F		F	E	D	C	E	E		F	C	C
Approach Vol, veh/h		538			906			1082			1757	
Approach Delay, s/veh		111.7			52.3			59.1			46.2	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	57.3		27.0	7.8	69.4		35.7				
Change Period (Y+Rc), s	5.5	5.9		5.9	5.5	5.9		5.5				
Max Green Setting (Gmax), s	14.5	48.6		21.1	5.5	57.6		33.0				
Max Q Clear Time (g_c+I1), s	16.5	43.0		23.1	3.3	37.2		22.1				
Green Ext Time (p_c), s	0.0	3.3		0.0	0.0	11.3		5.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	59.0
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

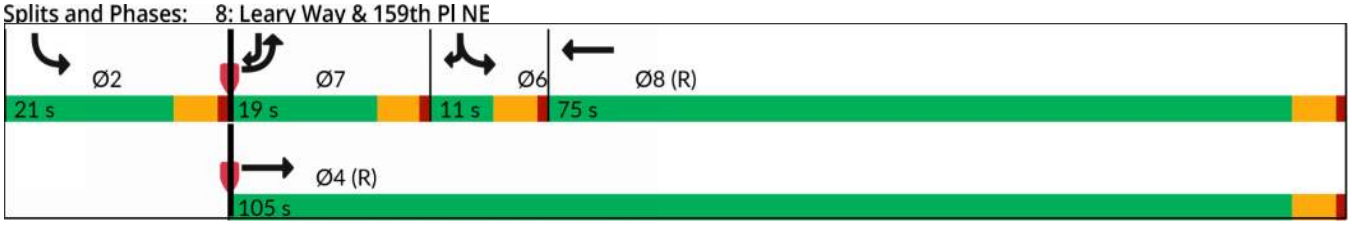
Lanes, Volumes, Timings
8: Leary Way & 159th Pl NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø6
Lane Configurations								
Traffic Volume (vph)	99	1292	829	17	26	79		
Future Volume (vph)	99	1292	829	17	26	79		
Satd. Flow (prot)	1787	1881	3550	0	1805	1615		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1696	1881	3550	0	1805	1615		
Satd. Flow (RTOR)			3			81		
Confl. Peds. (#/hr)	41			41		29		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%		
Mid-Block Traffic (%)		0%	0%		50%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	102	1332	873	0	27	81		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	7	4!	8		2 6!	6 7	2	6
Permitted Phases								
Detector Phase	7	4	8		2 6	7		
Switch Phase								
Minimum Initial (s)	5.0	7.0	7.0				4.0	6.0
Minimum Split (s)	10.0	12.0	20.0				21.0	11.0
Total Split (s)	19.0	105.0	75.0				21.0	11.0
Total Split (%)	15.1%	83.3%	59.5%				17%	9%
Yellow Time (s)	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	1.0	1.0	1.0				1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0					
Total Lost Time (s)	5.0	5.0	5.0					
Lead/Lag	Lead							Lag
Lead-Lag Optimize?	Yes							Yes
Recall Mode	None	C-Max	C-Max				None	None
Act Effct Green (s)	11.1	107.3	83.7		17.6	17.7		
Actuated g/C Ratio	0.09	0.85	0.66		0.14	0.14		
v/c Ratio	0.65	0.83	0.37		0.11	0.27		
Control Delay (s/veh)	74.3	13.7	12.5		30.3	11.3		
Queue Delay	0.0	2.3	0.0		0.0	0.0		
Total Delay (s/veh)	74.3	16.0	12.5		30.3	11.3		
LOS	E	B	B		C	B		
Approach Delay (s/veh)		20.1	12.5		16.1			
Approach LOS		C	B		B			

Intersection Summary			
Cycle Length: 126			
Actuated Cycle Length: 126			
Offset: 0 (0%), Referenced to phase 8:WBT and 4:EBT, Start of 1st Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 17.2		Intersection LOS: B	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
Analysis Period (min) 15			

! Phase conflict between lane groups.

Splits and Phases: 8: Leary Way & 159th Pl NE



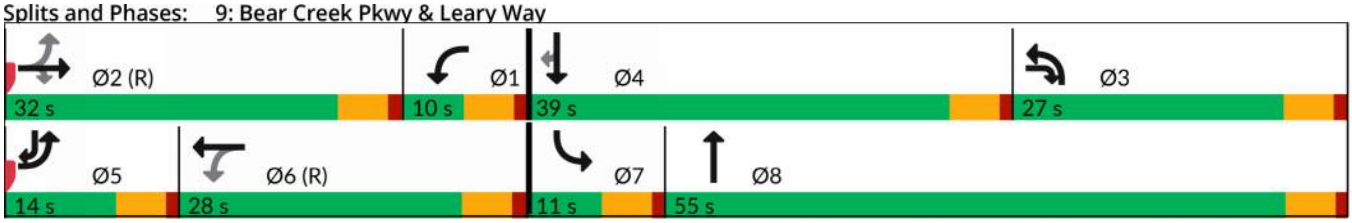
Lanes, Volumes, Timings
9: Bear Creek Pkwy & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	574	575	18	334	82	346	268	13	44	479	86
Future Volume (vph)	168	574	575	18	334	82	346	268	13	44	479	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		225	175		0	190		0	275		100
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		664			421			452			692	
Travel Time (s)		15.1			9.6			10.3			15.7	
Confl. Peds. (#/hr)	12		6	6		12	6		17	17		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8		7	4	5
Permitted Phases	2		2	6								4
Detector Phase	5	2	3	1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	5.0
Minimum Split (s)	10.0	26.2	11.2	10.0	24.2		11.2	28.0		10.0	26.0	10.0
Total Split (s)	14.0	32.0	27.0	10.0	28.0		27.0	55.0		11.0	39.0	14.0
Total Split (%)	13.0%	29.6%	25.0%	9.3%	25.9%		25.0%	50.9%		10.2%	36.1%	13.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.2	1.2	1.0	1.2		1.2	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.2	5.2	5.0	5.2		5.2	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	None

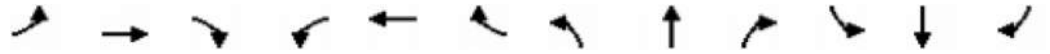
Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 84 (78%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bear Creek Pkwy & Leary Way



HCM 7th Signalized Intersection Summary
9: Bear Creek Pkwy & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	574	575	18	334	82	346	268	13	44	479	86
Future Volume (veh/h)	168	574	575	18	334	82	346	268	13	44	479	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	171	586	587	18	341	84	353	273	13	45	489	88
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	238	882	587	378	907	220	442	663	32	62	530	574
Arrive On Green	0.08	0.25	0.25	0.15	0.32	0.32	0.13	0.37	0.37	0.03	0.28	0.28
Sat Flow, veh/h	1781	3554	1547	1795	2846	691	3456	1770	84	1795	1885	1569
Grp Volume(v), veh/h	171	586	587	18	213	212	353	0	286	45	489	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1547	1795	1791	1745	1728	0	1854	1795	1885	1569
Q Serve(g_s), s	8.9	16.0	26.8	0.0	9.9	10.2	10.7	0.0	12.3	2.7	27.2	2.4
Cycle Q Clear(g_c), s	8.9	16.0	26.8	0.0	9.9	10.2	10.7	0.0	12.3	2.7	27.2	2.4
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	238	882	587	378	571	556	442	0	695	62	530	574
V/C Ratio(X)	0.72	0.66	1.00	0.05	0.37	0.38	0.80	0.00	0.41	0.73	0.92	0.15
Avail Cap(c_a), veh/h	238	882	587	378	571	556	698	0	858	100	593	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	1.00	1.00	1.00	0.85	0.00	0.85	0.86	0.86	0.86
Uniform Delay (d), s/veh	37.1	36.6	33.6	33.0	28.4	28.5	45.7	0.0	25.0	51.7	37.7	9.5
Incr Delay (d2), s/veh	4.5	1.9	25.6	0.0	1.9	2.0	3.0	0.0	0.3	13.3	17.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.1	13.0	0.4	4.5	4.5	4.8	0.0	5.4	1.4	14.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.7	38.4	59.2	33.0	30.3	30.5	48.7	0.0	25.3	64.9	54.7	9.6
LnGrp LOS	D	D	F	C	C	C	D		C	E	D	A
Approach Vol, veh/h		1344			443			639			622	
Approach Delay, s/veh		47.9			30.5			38.2			49.0	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	32.0	19.0	35.4	14.0	39.6	8.7	45.7
Change Period (Y+Rc), s	5.2	* 5.2	5.2	5.0	5.0	5.2	5.0	* 5.2
Max Green Setting (Gmax), s	5.0	* 27	21.8	34.0	9.0	22.8	6.0	* 50
Max Q Clear Time (g_c+I1), s	2.0	28.8	12.7	29.2	10.9	12.2	4.7	14.3
Green Ext Time (p_c), s	0.0	0.0	1.1	1.2	0.0	1.3	0.0	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	43.6
HCM 7th LOS	D

Notes

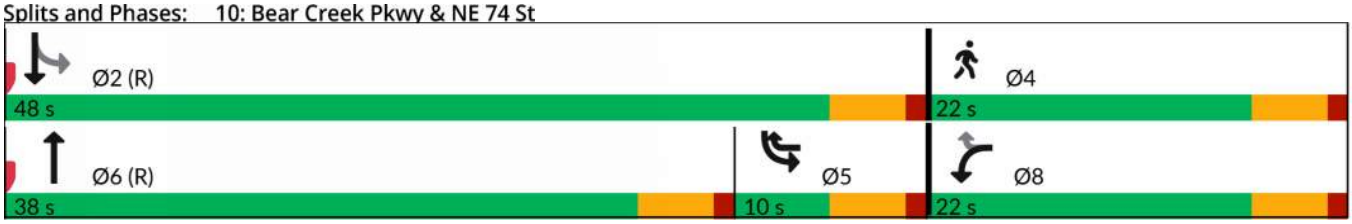
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
10: Bear Creek Pkwy & NE 74 St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	24	189	582	11	141	950	
Future Volume (vph)	24	189	582	11	141	950	
Satd. Flow (prot)	1805	1615	1857	0	1787	1881	
Flt Permitted	0.950				0.328		
Satd. Flow (perm)	1641	1615	1857	0	611	1881	
Satd. Flow (RTOR)		187	2				
Confl. Peds. (#/hr)	44			20	20		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	24	193	605	0	144	969	
Turn Type	Prot	pm+ov	NA		pm+pt	NA	
Protected Phases	8	5	6		5	2	4
Permitted Phases		8			2		
Detector Phase	8	5	6		5	2	
Switch Phase							
Minimum Initial (s)	7.0	4.0	8.0		4.0	5.0	8.0
Minimum Split (s)	12.0	9.0	23.0		9.0	10.0	22.0
Total Split (s)	22.0	10.0	38.0		10.0	48.0	22.0
Total Split (%)	31.4%	14.3%	54.3%		14.3%	68.6%	31%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0	
Lead/Lag		Lag	Lead		Lag		
Lead-Lag Optimize?		Yes	Yes		Yes		
Recall Mode	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	13.0	19.3	40.7		51.8	53.8	
Actuated g/C Ratio	0.19	0.28	0.58		0.74	0.77	
v/c Ratio	0.07	0.33	0.56		0.26	0.67	
Control Delay (s/veh)	21.4	4.4	14.8		7.7	11.8	
Queue Delay	0.0	0.0	0.0		0.0	0.7	
Total Delay (s/veh)	21.4	4.4	14.8		7.7	12.5	
LOS	C	A	B		A	B	
Approach Delay (s/veh)	6.3		14.8			11.9	
Approach LOS	A		B			B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 12.2	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Bear Creek Pkwy & NE 74 St



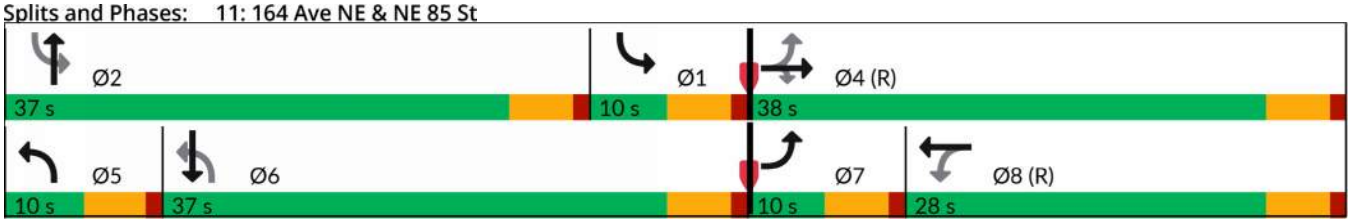
Lanes, Volumes, Timings
11: 164 Ave NE & NE 85 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	365	69	8	209	172	28	502	20	170	373	36
Future Volume (vph)	70	365	69	8	209	172	28	502	20	170	373	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		0	250		0	240		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			30	
Link Distance (ft)		469			304			659			473	
Travel Time (s)		10.7			6.9			16.0			10.8	
Confl. Peds. (#/hr)	12					12	22					22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8			6			2		
Detector Phase	7	4	4	8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0		10.0	22.0		10.0	27.0	
Total Split (s)	10.0	38.0	38.0	28.0	28.0		10.0	37.0		10.0	37.0	
Total Split (%)	11.8%	44.7%	44.7%	32.9%	32.9%		11.8%	43.5%		11.8%	43.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max		None	None		None	None	

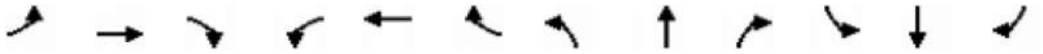
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 11: 164 Ave NE & NE 85 St



HCM 7th Signalized Intersection Summary
11: 164 Ave NE & NE 85 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	365	69	8	209	172	28	502	20	170	373	36
Future Volume (veh/h)	70	365	69	8	209	172	28	502	20	170	373	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	74	384	73	8	220	181	29	528	21	179	393	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	317	852	712	376	326	268	278	570	23	217	583	56
Arrive On Green	0.05	0.45	0.45	0.34	0.34	0.34	0.03	0.32	0.32	0.06	0.35	0.35
Sat Flow, veh/h	1810	1900	1589	942	956	786	1795	1798	72	1795	1686	163
Grp Volume(v), veh/h	74	384	73	8	0	401	29	0	549	179	0	431
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	942	0	1742	1795	0	1869	1795	0	1850
Q Serve(g_s), s	2.1	11.9	2.3	0.5	0.0	16.7	0.9	0.0	24.1	2.9	0.0	16.9
Cycle Q Clear(g_c), s	2.1	11.9	2.3	3.2	0.0	16.7	0.9	0.0	24.1	2.9	0.0	16.9
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	317	852	712	376	0	594	278	0	593	217	0	640
V/C Ratio(X)	0.23	0.45	0.10	0.02	0.00	0.67	0.10	0.00	0.93	0.82	0.00	0.67
Avail Cap(c_a), veh/h	335	852	712	376	0	594	331	0	704	219	0	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.85	0.00	0.85	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.5	16.2	13.5	20.5	0.0	24.0	18.6	0.0	28.1	37.9	0.0	23.7
Incr Delay (d2), s/veh	0.1	1.7	0.3	0.1	0.0	6.0	0.1	0.0	13.7	20.4	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.3	0.8	0.1	0.0	7.6	0.4	0.0	12.6	4.8	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.6	17.9	13.8	20.6	0.0	30.0	18.7	0.0	41.7	58.3	0.0	25.4
LnGrp LOS	B	B	B	C		C	B		D	E		C
Approach Vol, veh/h		531			409			578			610	
Approach Delay, s/veh		17.3			29.8			40.6			35.1	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	32.0		43.1	7.5	34.4	9.1	34.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	32.0		33.0	5.0	32.0	5.0	23.0				
Max Q Clear Time (g_c+I1), s	4.9	26.1		13.9	2.9	18.9	4.1	18.7				
Green Ext Time (p_c), s	0.0	0.8		1.0	0.0	0.9	0.0	0.5				

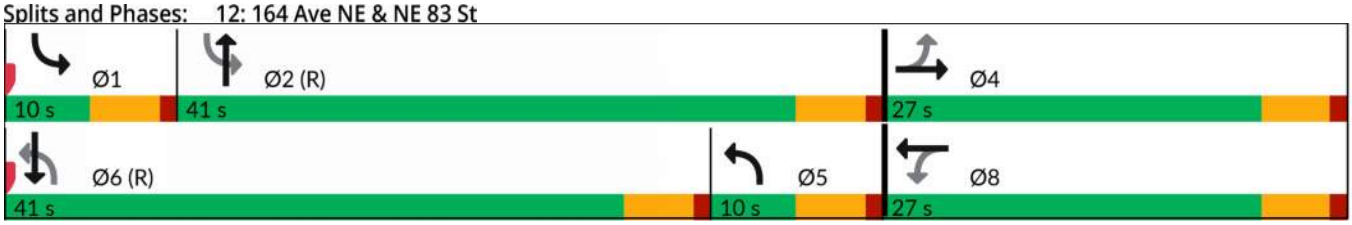
Intersection Summary	
HCM 7th Control Delay, s/veh	31.1
HCM 7th LOS	C

Lanes, Volumes, Timings
12: 164 Ave NE & NE 83 St 03/21/2025

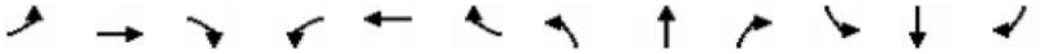
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	210	67	24	117	38	60	480	47	68	365	17
Future Volume (vph)	40	210	67	24	117	38	60	480	47	68	365	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			28	
Link Distance (ft)		968			599			662			659	
Travel Time (s)		22.0			13.6			16.1			16.0	
Confl. Peds. (#/hr)	34		47	47		34	24		31	31		24
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	3%	3%	3%	1%	1%	1%
Mid-Block Traffic (%)		40%			20%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	19.0		10.0	19.0	
Total Split (s)	27.0	27.0		27.0	27.0		10.0	41.0		10.0	41.0	
Total Split (%)	34.6%	34.6%		34.6%	34.6%		12.8%	52.6%		12.8%	52.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

Intersection Summary
Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 17 (22%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: 164 Ave NE & NE 83 St



HCM 7th Signalized Intersection Summary
12: 164 Ave NE & NE 83 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	210	67	24	117	38	60	480	47	68	365	17
Future Volume (veh/h)	40	210	67	24	117	38	60	480	47	68	365	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.93		0.89	0.96		0.89	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1885	1885	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	41	216	69	25	121	39	62	495	48	70	376	18
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	1	1	1	3	3	3	1	1	1
Cap, veh/h	246	278	89	146	286	92	632	898	87	647	822	39
Arrive On Green	0.07	0.07	0.07	0.22	0.22	0.22	0.26	1.00	1.00	0.05	0.46	0.46
Sat Flow, veh/h	1116	1283	410	1063	1321	426	1767	1660	161	1795	1781	85
Grp Volume(v), veh/h	41	0	285	25	0	160	62	0	543	70	0	394
Grp Sat Flow(s),veh/h/ln	1116	0	1693	1063	0	1747	1767	0	1821	1795	0	1866
Q Serve(g_s), s	2.8	0.0	12.9	1.8	0.0	6.2	0.0	0.0	0.0	1.3	0.0	11.2
Cycle Q Clear(g_c), s	8.9	0.0	12.9	14.7	0.0	6.2	0.0	0.0	0.0	1.3	0.0	11.2
Prop In Lane	1.00		0.24	1.00		0.24	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	246	0	366	146	0	378	632	0	986	647	0	861
V/C Ratio(X)	0.17	0.00	0.78	0.17	0.00	0.42	0.10	0.00	0.55	0.11	0.00	0.46
Avail Cap(c_a), veh/h	319	0	478	216	0	493	632	0	986	672	0	861
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	0.91	0.99	0.00	0.99	0.87	0.00	0.87	0.78	0.00	0.78
Uniform Delay (d), s/veh	35.5	0.0	34.4	36.0	0.0	26.4	10.7	0.0	0.0	6.8	0.0	14.3
Incr Delay (d2), s/veh	0.1	0.0	3.9	0.2	0.0	0.3	0.0	0.0	1.9	0.0	0.0	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	6.2	0.5	0.0	2.5	0.5	0.0	0.5	0.4	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.6	0.0	38.3	36.2	0.0	26.6	10.8	0.0	1.9	6.8	0.0	15.7
LnGrp LOS	D		D	D		C	B		A	A		B
Approach Vol, veh/h		326			185			605			464	
Approach Delay, s/veh		37.9			27.9			2.8			14.4	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	47.2		21.9	15.1	41.0		21.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	36.0		22.0	5.0	36.0		22.0				
Max Q Clear Time (g_c+I1), s	3.3	2.0		14.9	2.0	13.2		16.7				
Green Ext Time (p_c), s	0.0	1.6		0.5	0.0	0.9		0.2				

Intersection Summary		
HCM 7th Control Delay, s/veh		16.4
HCM 7th LOS		B

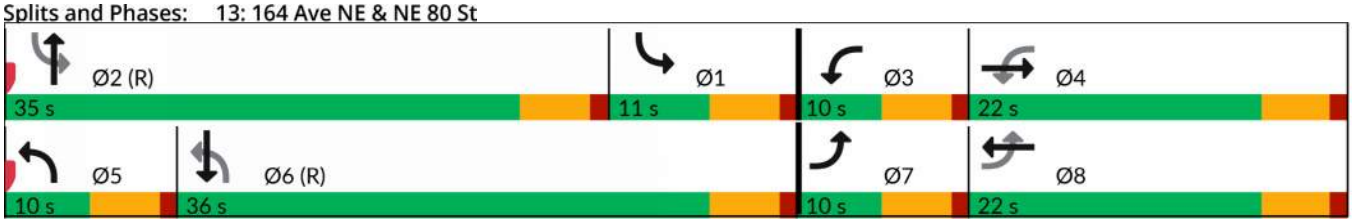
Lanes, Volumes, Timings
13: 164 Ave NE & NE 80 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	161	21	34	193	56	23	341	61	109	356	68
Future Volume (vph)	75	161	21	34	193	56	23	341	61	109	356	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	150		0	100		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			28			28	
Link Distance (ft)		178			313			347			662	
Travel Time (s)		4.9			8.5			8.4			16.1	
Confl. Peds. (#/hr)	27		24	24		27	37		22	22		37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8			4			6			2		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	17.0		10.0	18.0		10.0	18.0		10.0	19.0	
Total Split (s)	10.0	22.0		10.0	22.0		10.0	35.0		11.0	36.0	
Total Split (%)	12.8%	28.2%		12.8%	28.2%		12.8%	44.9%		14.1%	46.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes			Yes			Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

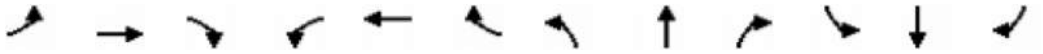
Intersection Summary

Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 18 (23%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: 164 Ave NE & NE 80 St



HCM 7th Signalized Intersection Summary
13: 164 Ave NE & NE 80 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	161	21	34	193	56	23	341	61	109	356	68
Future Volume (veh/h)	75	161	21	34	193	56	23	341	61	109	356	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.93	0.97		0.92	0.98		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	81	173	23	37	208	60	25	367	66	117	383	73
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	3	3	3
Cap, veh/h	220	312	42	283	242	70	572	584	105	521	734	140
Arrive On Green	0.11	0.39	0.39	0.04	0.18	0.18	0.04	0.51	0.51	0.26	0.98	0.98
Sat Flow, veh/h	1795	1613	214	1795	1377	397	1767	1517	273	1767	1504	287
Grp Volume(v), veh/h	81	0	196	37	0	268	25	0	433	117	0	456
Grp Sat Flow(s),veh/h/ln	1795	0	1828	1795	0	1775	1767	0	1790	1767	0	1791
Q Serve(g_s), s	2.8	0.0	6.5	1.3	0.0	11.4	0.5	0.0	13.6	0.0	0.0	1.0
Cycle Q Clear(g_c), s	2.8	0.0	6.5	1.3	0.0	11.4	0.5	0.0	13.6	0.0	0.0	1.0
Prop In Lane	1.00		0.12	1.00		0.22	1.00		0.15	1.00		0.16
Lane Grp Cap(c), veh/h	220	0	354	283	0	312	572	0	689	521	0	873
V/C Ratio(X)	0.37	0.00	0.55	0.13	0.00	0.86	0.04	0.00	0.63	0.22	0.00	0.52
Avail Cap(c_a), veh/h	240	0	398	335	0	387	638	0	689	521	0	873
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.92	0.00	0.92	0.94	0.00	0.94
Uniform Delay (d), s/veh	23.8	0.0	21.3	24.0	0.0	31.2	9.2	0.0	15.0	16.1	0.0	0.5
Incr Delay (d2), s/veh	0.8	0.0	1.0	0.2	0.0	13.8	0.0	0.0	4.0	0.1	0.0	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.5	0.5	0.0	6.0	0.2	0.0	5.2	1.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	0.0	22.3	24.1	0.0	45.0	9.3	0.0	19.0	16.3	0.0	2.6
LnGrp LOS	C		C	C		D	A		B	B		A
Approach Vol, veh/h		277			305			458			573	
Approach Delay, s/veh		22.9			42.5			18.5			5.4	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	35.0	7.8	20.1	7.1	43.0	9.1	18.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	30.0	5.0	17.0	5.0	31.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	2.0	15.6	3.3	8.5	2.5	3.0	4.8	13.4
Green Ext Time (p_c), s	0.1	1.3	0.0	0.4	0.0	1.6	0.0	0.3

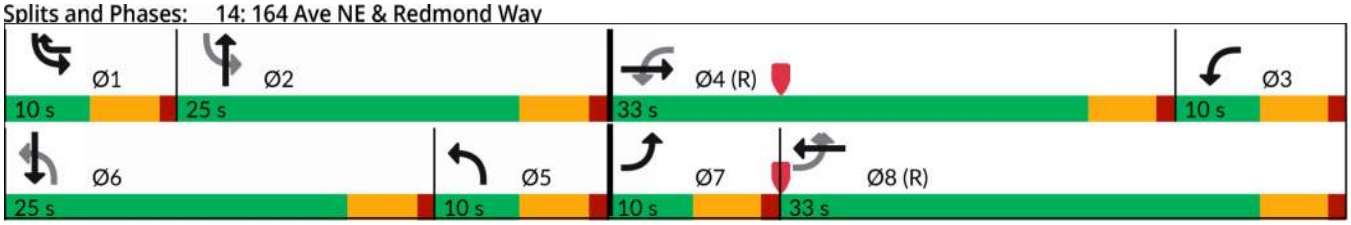
Intersection Summary	
HCM 7th Control Delay, s/veh	19.1
HCM 7th LOS	B

Lanes, Volumes, Timings
14: 164 Ave NE & Redmond Way 03/21/2025

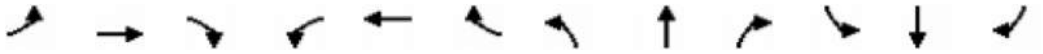
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	575	20	25	631	245	48	148	38	208	142	21
Future Volume (vph)	33	575	20	25	631	245	48	148	38	208	142	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	70		0	150		150
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		314			714			325			347	
Travel Time (s)		7.1			16.2			7.4			7.9	
Confl. Peds. (#/hr)	56		39	39		56	61		51	51		61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA	pm+ov	D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	8			4		8	6			2		
Detector Phase	7	4		3	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	10.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	22.0		10.0	24.0	10.0	10.0	25.0		10.0	24.0	
Total Split (s)	10.0	33.0		10.0	33.0	10.0	10.0	25.0		10.0	25.0	
Total Split (%)	12.8%	42.3%		12.8%	42.3%	12.8%	12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 10 (13%), Referenced to phase 4:EBWB and 8:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 14: 164 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
14: 164 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	575	20	25	631	245	48	148	38	208	142	21
Future Volume (veh/h)	33	575	20	25	631	245	48	148	38	208	142	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	0.95		0.86	0.92		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1670	1670	1670	1697	1697	1697	1643	1643	1643
Adj Flow Rate, veh/h	34	593	21	26	651	253	49	153	39	214	146	22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	3	3	1	1	1	5	5	5
Cap, veh/h	231	578	20	248	707	651	326	280	71	320	297	45
Arrive On Green	0.07	0.72	0.72	0.20	0.85	0.85	0.14	0.44	0.44	0.02	0.07	0.07
Sat Flow, veh/h	1603	1610	57	1590	1670	1322	1616	1258	321	1565	1376	207
Grp Volume(v), veh/h	34	0	614	26	651	253	49	0	192	214	0	168
Grp Sat Flow(s),veh/h/ln	1603	0	1667	1590	1670	1322	1616	0	1579	1565	0	1583
Q Serve(g_s), s	0.9	0.0	28.0	0.0	21.1	3.3	0.0	0.0	7.0	5.0	0.0	8.0
Cycle Q Clear(g_c), s	0.9	0.0	28.0	0.0	21.1	3.3	0.0	0.0	7.0	5.0	0.0	8.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		0.13
Lane Grp Cap(c), veh/h	231	0	599	248	707	651	326	0	351	320	0	342
V/C Ratio(X)	0.15	0.00	1.03	0.10	0.92	0.39	0.15	0.00	0.55	0.67	0.00	0.49
Avail Cap(c_a), veh/h	280	0	599	248	707	651	326	0	405	320	0	406
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.77	0.00	0.77	0.82	0.82	0.82	0.77	0.00	0.77	0.89	0.00	0.89
Uniform Delay (d), s/veh	14.3	0.0	11.0	28.3	5.0	2.9	25.0	0.0	18.8	27.5	0.0	32.1
Incr Delay (d2), s/veh	0.2	0.0	39.0	0.2	16.5	1.4	0.2	0.0	1.0	4.7	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	9.9	0.4	5.1	0.8	0.7	0.0	2.2	1.9	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.5	0.0	50.0	28.4	21.5	4.4	25.2	0.0	19.8	32.2	0.0	33.1
LnGrp LOS	B		F	C	C	A	C		B	C		C
Approach Vol, veh/h		648			930			241			382	
Approach Delay, s/veh		48.2			17.1			20.9			32.6	
Approach LOS		D			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.4	12.6	33.0	10.5	21.8	7.6	38.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	28.0	5.0	20.0	5.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	9.0	2.0	30.0	2.0	10.0	2.9	23.1
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.7	0.0	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	29.3
HCM 7th LOS	C

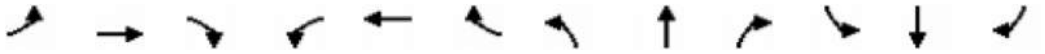
Lanes, Volumes, Timings
15: 164 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	268	50	14	98	25	41	180	20	27	146	30
Future Volume (vph)	28	268	50	14	98	25	41	180	20	27	146	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		429			743			151			325	
Travel Time (s)		11.7			20.3			3.4			7.4	
Confl. Peds. (#/hr)	18		30	30		18	43		25	25		43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Parking (#/hr)	0	0	0									
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		8.0	8.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	20.0		10.0	19.0	
Total Split (s)	43.0	43.0		43.0	43.0		10.0	25.0		10.0	25.0	
Total Split (%)	55.1%	55.1%		55.1%	55.1%		12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 77 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 15: 164 Ave NE & Cleveland St

HCM 7th Signalized Intersection Summary
15: 164 Ave NE & Cleveland St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	268	50	14	98	25	41	180	20	27	146	30
Future Volume (veh/h)	28	268	50	14	98	25	41	180	20	27	146	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.98	1.00		0.98	0.93		0.87	0.94		0.87
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1697	1697	1697	1683	1683	1683	1697	1697	1697	1683	1683	1683
Adj Flow Rate, veh/h	30	288	54	15	105	27	44	194	22	29	157	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	91	712	128	112	704	172	211	250	28	184	211	43
Arrive On Green	0.61	0.61	0.61	1.00	1.00	1.00	0.04	0.17	0.17	0.06	0.32	0.32
Sat Flow, veh/h	67	1171	210	101	1158	283	1616	1471	167	1603	1317	269
Grp Volume(v), veh/h	372	0	0	147	0	0	44	0	216	29	0	189
Grp Sat Flow(s),veh/h/ln	1448	0	0	1542	0	0	1616	0	1638	1603	0	1586
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	9.8	0.0	0.0	8.3
Cycle Q Clear(g_c), s	10.3	0.0	0.0	0.0	0.0	0.0	1.7	0.0	9.8	0.0	0.0	8.3
Prop In Lane	0.08		0.15	0.10		0.18	1.00		0.10	1.00		0.17
Lane Grp Cap(c), veh/h	930	0	0	988	0	0	211	0	279	184	0	255
V/C Ratio(X)	0.40	0.00	0.00	0.15	0.00	0.00	0.21	0.00	0.78	0.16	0.00	0.74
Avail Cap(c_a), veh/h	930	0	0	988	0	0	251	0	420	238	0	407
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.00	0.99	0.00	0.00	1.00	0.00	1.00	0.93	0.00	0.93
Uniform Delay (d), s/veh	8.0	0.0	0.0	0.0	0.0	0.0	26.1	0.0	30.9	33.4	0.0	25.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.3	0.0	0.0	0.5	0.0	5.1	0.4	0.0	4.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	0.1	0.0	0.0	0.7	0.0	4.1	0.5	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.3	0.0	0.0	0.3	0.0	0.0	26.6	0.0	36.0	33.7	0.0	29.0
LnGrp LOS	A			A			C		D	C		C
Approach Vol, veh/h		372			147			260			218	
Approach Delay, s/veh		9.3			0.3			34.4			29.6	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	18.3		52.4	8.1	17.5		52.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	20.0		38.0	5.0	20.0		38.0				
Max Q Clear Time (g_c+I1), s	2.0	11.8		12.3	3.7	10.3		2.0				
Green Ext Time (p_c), s	0.0	0.5		1.6	0.0	0.5		0.6				

Intersection Summary		
HCM 7th Control Delay, s/veh	19.0	
HCM 7th LOS	B	

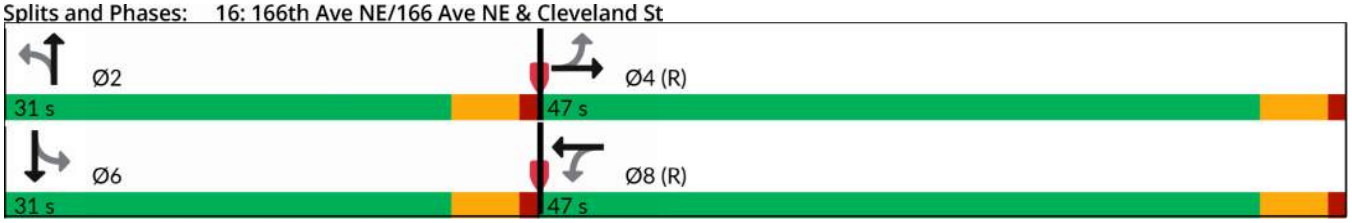
Lanes, Volumes, Timings
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	250	27	32	114	26	16	177	90	7	86	11
Future Volume (vph)	47	250	27	32	114	26	16	177	90	7	86	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	100		125	160		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		743			556			226			372	
Travel Time (s)		20.3			15.2			6.2			8.5	
Confl. Peds. (#/hr)	31		1	1		31	4		79	79		4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA	Free	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		Free	6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	47.0	47.0		47.0	47.0		31.0	31.0		31.0	31.0	
Total Split (%)	60.3%	60.3%		60.3%	60.3%		39.7%	39.7%		39.7%	39.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	

Intersection Summary

Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 8 (10%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 16: 166th Ave NE/166 Ave NE & Cleveland St



HCM 7th Signalized Intersection Summary
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	250	27	32	114	26	16	177	90	7	86	11
Future Volume (veh/h)	47	250	27	32	114	26	16	177	90	7	86	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.85		1.00	0.89		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1710	1710	1710	1697	1697	1697	1697	1697	1697	1697	1697	1697
Adj Flow Rate, veh/h	49	263	28	34	120	27	17	186	0	7	91	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	169	856	87	206	688	147	254	349		196	292	39
Arrive On Green	1.00	1.00	1.00	0.67	0.67	0.67	0.21	0.21	0.00	0.41	0.41	0.41
Sat Flow, veh/h	175	1284	131	227	1033	221	997	1697	1438	963	1423	188
Grp Volume(v), veh/h	340	0	0	181	0	0	17	186	0	7	0	103
Grp Sat Flow(s),veh/h/ln	1590	0	0	1481	0	0	997	1697	1438	963	0	1610
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	7.6	0.0	0.5	0.0	3.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.2	0.0	0.0	4.5	7.6	0.0	8.1	0.0	3.4
Prop In Lane	0.14		0.08	0.19		0.15	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	1112	0	0	1042	0	0	254	349		196	0	331
V/C Ratio(X)	0.31	0.00	0.00	0.17	0.00	0.00	0.07	0.53		0.04	0.00	0.31
Avail Cap(c_a), veh/h	1112	0	0	1042	0	0	382	566		319	0	537
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.92	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	0.0	0.0	0.0	4.9	0.0	0.0	27.8	27.6	0.0	23.7	0.0	19.2
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.4	0.0	0.0	0.4	4.5	0.0	0.3	0.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.0	0.0	0.0	0.3	3.5	0.0	0.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.7	0.0	0.0	5.2	0.0	0.0	28.2	32.2	0.0	23.9	0.0	21.1
LnGrp LOS	A			A			C	C		C		C
Approach Vol, veh/h		340			181			203			110	
Approach Delay, s/veh		0.7			5.2			31.9			21.3	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.0	57.0	21.0	57.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	26.0	42.0	26.0	42.0
Max Q Clear Time (g_c+I1), s	9.6	2.0	10.1	5.2
Green Ext Time (p_c), s	1.8	4.8	0.8	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

Notes

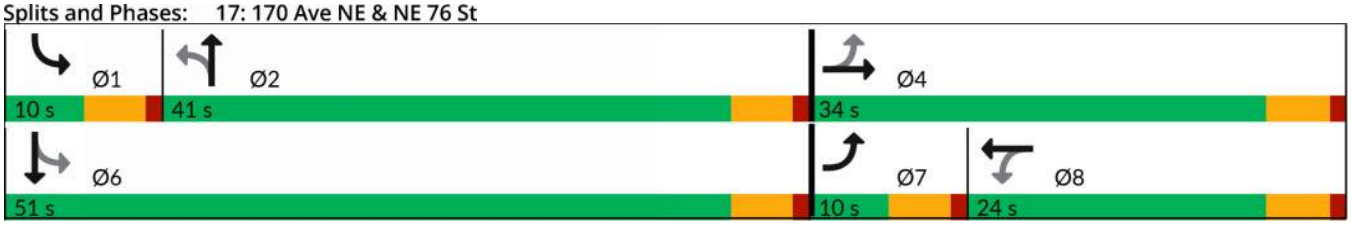
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
17: 170 Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	2	15	8	5	52	5	914	2	17	508	107
Future Volume (vph)	157	2	15	8	5	52	5	914	2	17	508	107
Satd. Flow (prot)	0	1772	0	0	1658	0	1787	3573	0	1787	3432	0
Flt Permitted		0.699			0.959		0.409			0.185		
Satd. Flow (perm)	0	1288	0	0	1594	0	749	3573	0	348	3432	0
Satd. Flow (RTOR)		6			54						45	
Confl. Peds. (#/hr)	5		25	25		5	21		31	31		21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	0	0	67	0	5	954	0	18	640	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		8.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	24.0		24.0	24.0		18.0	18.0		10.0	19.0	
Total Split (s)	10.0	34.0		24.0	24.0		41.0	41.0		10.0	51.0	
Total Split (%)	11.8%	40.0%		28.2%	28.2%		48.2%	48.2%		11.8%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		None	Min	
Act Effct Green (s)		14.6			14.6		25.7	25.7		27.0	27.0	
Actuated g/C Ratio		0.28			0.28		0.49	0.49		0.52	0.52	
v/c Ratio		0.50			0.14		0.01	0.54		0.06	0.36	
Control Delay (s/veh)		21.8			8.0		10.2	12.0		7.6	7.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		21.8			8.0		10.2	12.0		7.6	7.9	
LOS		C			A		B	B		A	A	
Approach Delay (s/veh)		21.8			8.0			12.0			7.9	
Approach LOS		C			A			B			A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 52.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay (s/veh): 11.4	Intersection LOS: B
Intersection Capacity Utilization 50.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: 170 Ave NE & NE 76 St



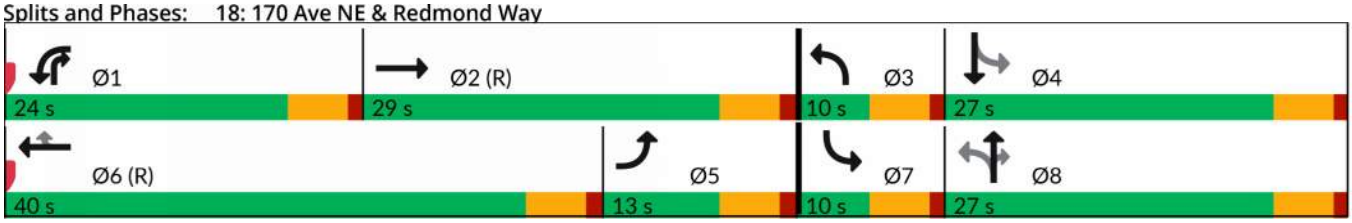
Lanes, Volumes, Timings
18: 170 Ave NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	837	84	383	722	248	29	374	723	148	170	16
Future Volume (vph)	62	837	84	383	722	248	29	374	723	148	170	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	125		0	100		0
Storage Lanes	1		0	2		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			661			498			439	
Travel Time (s)		13.3			15.0			11.3			10.0	
Confl. Peds. (#/hr)	20		6	6		20	15		27	27		15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases						6	8		8	4		
Detector Phase	5	2		1	6	6	3 8	8	1	7 4	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0	6.0	5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0	11.0	10.0	27.0	
Total Split (s)	13.0	29.0		24.0	40.0	40.0	10.0	27.0	24.0	10.0	27.0	
Total Split (%)	14.4%	32.2%		26.7%	44.4%	44.4%	11.1%	30.0%	26.7%	11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	

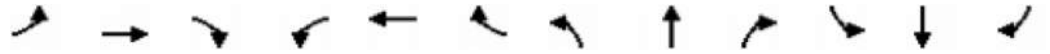
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 54 (60%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 18: 170 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
18: 170 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	837	84	383	722	248	29	374	723	148	170	16
Future Volume (veh/h)	62	837	84	383	722	248	29	374	723	148	170	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.98		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	65	881	88	403	760	261	31	394	761	156	179	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	160	1094	109	503	1393	605	333	461	608	202	456	43
Arrive On Green	0.18	0.67	0.67	0.05	0.13	0.13	0.03	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1795	3282	328	3483	3582	1557	1795	1885	1545	1795	1690	160
Grp Volume(v), veh/h	65	481	488	403	760	261	31	394	761	156	0	196
Grp Sat Flow(s),veh/h/ln	1795	1791	1819	1742	1791	1557	1795	1885	1545	1795	0	1850
Q Serve(g_s), s	2.9	17.4	17.4	10.3	17.9	10.1	1.1	18.0	22.0	5.0	0.0	9.0
Cycle Q Clear(g_c), s	2.9	17.4	17.4	10.3	17.9	10.1	1.1	18.0	22.0	5.0	0.0	9.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	160	597	606	503	1393	605	333	461	608	202	0	500
V/C Ratio(X)	0.41	0.81	0.81	0.80	0.55	0.43	0.09	0.85	1.25	0.77	0.00	0.39
Avail Cap(c_a), veh/h	160	597	606	735	1393	605	379	461	608	202	0	500
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.97	0.97	0.97	0.57	0.57	0.57	0.82	0.82	0.82	0.43	0.00	0.43
Uniform Delay (d), s/veh	34.9	12.9	12.9	41.6	31.8	15.9	24.4	32.5	27.6	29.9	0.0	34.0
Incr Delay (d2), s/veh	0.6	10.8	10.6	1.4	0.9	1.3	0.0	11.7	123.9	7.2	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	5.6	5.7	4.9	8.7	4.2	0.5	9.5	33.3	1.3	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.5	23.7	23.5	42.9	32.7	17.2	24.4	44.2	151.5	37.0	0.0	34.1
LnGrp LOS	D	C	C	D	C	B	C	D	F	D		C
Approach Vol, veh/h		1034			1424			1186			352	
Approach Delay, s/veh		24.3			32.7			112.6			35.4	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	35.0	7.7	29.3	13.0	40.0	10.0	27.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	19.0	24.0	5.0	22.0	8.0	35.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	12.3	19.4	3.1	11.0	4.9	19.9	7.0	24.0
Green Ext Time (p_c), s	0.7	1.9	0.0	0.3	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	54.5
HCM 7th LOS	D

Lanes, Volumes, Timings
19: Bear Creek Crossing & Redmond Way 03/21/2025

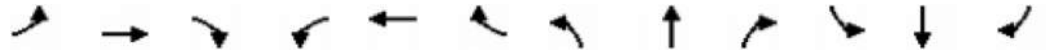
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	1518	9	18	1125	155	41	17	51	128	18	57
Future Volume (vph)	98	1518	9	18	1125	155	41	17	51	128	18	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	175		150	0		0	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		661			588			140			177	
Travel Time (s)		15.0			13.4			3.8			4.8	
Confl. Peds. (#/hr)	20		2	2		20	2		20	20		2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	D.P+P	NA		D.P+P	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	4			8		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0		10.0	27.0	
Total Split (s)	13.0	42.0		11.0	40.0	40.0	10.0	27.0		10.0	27.0	
Total Split (%)	14.4%	46.7%		12.2%	44.4%	44.4%	11.1%	30.0%		11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes				Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Bear Creek Crossing & Redmond Way

HCM 7th Signalized Intersection Summary
19: Bear Creek Crossing & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	1518	9	18	1125	155	41	17	51	128	18	57
Future Volume (veh/h)	98	1518	9	18	1125	155	41	17	51	128	18	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1870	1870	1870
Adj Flow Rate, veh/h	101	1565	9	19	1160	160	42	18	53	132	19	59
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	129	1501	9	155	1523	663	416	94	275	426	96	298
Arrive On Green	0.02	0.14	0.14	0.03	0.14	0.14	0.04	0.23	0.23	0.06	0.24	0.24
Sat Flow, veh/h	1795	3651	21	1795	3582	1560	1810	416	1224	1781	393	1221
Grp Volume(v), veh/h	101	767	807	19	1160	160	42	0	71	132	0	78
Grp Sat Flow(s),veh/h/ln	1795	1791	1881	1795	1791	1560	1810	0	1640	1781	0	1614
Q Serve(g_s), s	5.0	37.0	37.0	0.9	28.1	8.2	1.5	0.0	3.2	5.0	0.0	3.5
Cycle Q Clear(g_c), s	5.0	37.0	37.0	0.9	28.1	8.2	1.5	0.0	3.2	5.0	0.0	3.5
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.75	1.00		0.76
Lane Grp Cap(c), veh/h	129	736	773	155	1523	663	416	0	369	426	0	395
V/C Ratio(X)	0.78	1.04	1.04	0.12	0.76	0.24	0.10	0.00	0.19	0.31	0.00	0.20
Avail Cap(c_a), veh/h	160	736	773	155	1523	663	451	0	401	426	0	395
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.15	0.15	0.15	0.74	0.74	0.74	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.2	38.9	38.9	40.4	34.3	25.8	23.9	0.0	28.3	25.3	0.0	27.0
Incr Delay (d2), s/veh	2.8	25.7	25.8	0.2	2.7	0.6	0.1	0.0	0.2	0.3	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	22.8	24.0	0.4	13.9	3.4	0.7	0.0	1.3	2.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.0	64.6	64.7	40.6	37.0	26.4	24.0	0.0	28.4	25.6	0.0	28.1
LnGrp LOS	D	F	F	D	D	C	C		C	C		C
Approach Vol, veh/h		1675			1339			113			210	
Approach Delay, s/veh		63.5			35.8			26.8			26.5	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	42.0	8.3	27.0	11.5	43.3	10.0	25.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	37.0	5.0	22.0	8.0	35.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	2.9	39.0	3.5	5.5	7.0	30.1	7.0	5.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	2.9	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	48.8
HCM 7th LOS	D

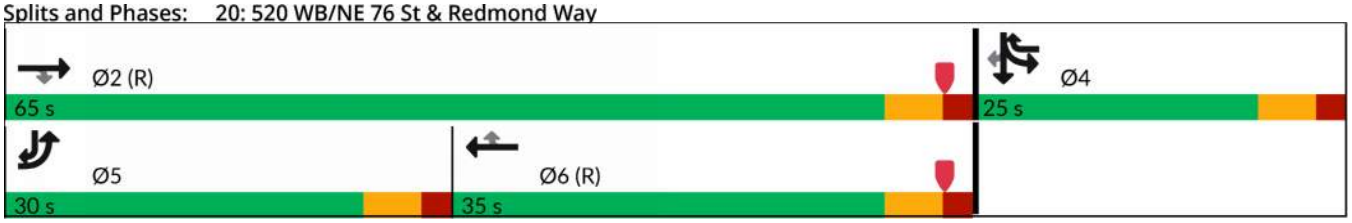
Lanes, Volumes, Timings
20: 520 WB/NE 76 St & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	419	1033	253	0	885	366	0	0	0	68	364	413
Future Volume (vph)	419	1033	253	0	885	366	0	0	0	68	364	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		110	0		0	0		0	400		350
Storage Lanes	2		1	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		588			476			347			459	
Travel Time (s)		8.9			7.2			9.5			12.5	
Confl. Peds. (#/hr)	16					16						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm		NA	pm+ov				Split	NA	pm+ov
Protected Phases	5	2			6	4				4	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	2		6	4				4	4	5
Switch Phase												
Minimum Initial (s)	5.0	7.0	7.0		7.0	5.0				5.0	5.0	5.0
Minimum Split (s)	10.9	12.9	12.9		37.9	10.9				10.9	10.9	10.9
Total Split (s)	30.0	65.0	65.0		35.0	25.0				25.0	25.0	30.0
Total Split (%)	33.3%	72.2%	72.2%		38.9%	27.8%				27.8%	27.8%	33.3%
Yellow Time (s)	3.9	3.9	3.9		3.9	3.9				3.9	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0				2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0				0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9		5.9	5.9				5.9	5.9	5.9
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min		C-Min	None				None	None	None

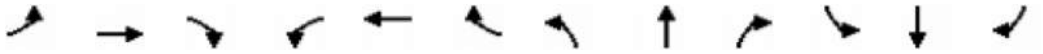
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:EBT and 6:WBT, Start of Red
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 20: 520 WB/NE 76 St & Redmond Way



HCM 7th Signalized Intersection Summary
20: 520 WB/NE 76 St & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	419	1033	253	0	885	366	0	0	0	68	364	413
Future Volume (veh/h)	419	1033	253	0	885	366	0	0	0	68	364	413
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1885	1885				1870	1870	1870
Adj Flow Rate, veh/h	432	1065	261	0	912	377				70	375	426
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	1	1				2	2	2
Cap, veh/h	549	2352	1041	0	1552	1019				378	397	586
Arrive On Green	0.16	0.66	0.66	0.00	0.87	0.87				0.21	0.21	0.21
Sat Flow, veh/h	3483	3582	1586	0	3676	1568				1781	1870	1585
Grp Volume(v), veh/h	432	1065	261	0	912	377				70	375	426
Grp Sat Flow(s),veh/h/ln	1742	1791	1586	0	1791	1568				1781	1870	1585
Q Serve(g_s), s	10.7	13.1	6.1	0.0	6.2	3.5				2.9	17.8	19.1
Cycle Q Clear(g_c), s	10.7	13.1	6.1	0.0	6.2	3.5				2.9	17.8	19.1
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	549	2352	1041	0	1552	1019				378	397	586
V/C Ratio(X)	0.79	0.45	0.25	0.00	0.59	0.37				0.19	0.94	0.73
Avail Cap(c_a), veh/h	933	2352	1041	0	1552	1019				378	397	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	0.00	0.81	0.81				1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	7.5	6.3	0.0	3.8	1.5				29.1	34.9	24.4
Incr Delay (d2), s/veh	1.0	0.2	0.2	0.0	1.3	0.8				0.2	31.3	4.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.9	1.6	0.0	1.5	1.2				1.3	11.4	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.4	7.8	6.6	0.0	5.1	2.3				29.3	66.3	28.9
LnGrp LOS	D	A	A		A	A				C	E	C
Approach Vol, veh/h		1758			1289						871	
Approach Delay, s/veh		14.9			4.3						45.0	
Approach LOS		B			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		65.0		25.0	20.1	44.9						
Change Period (Y+Rc), s		5.9		5.9	5.9	5.9						
Max Green Setting (Gmax), s		59.1		19.1	24.1	29.1						
Max Q Clear Time (g_c+I1), s		15.1		21.1	12.7	8.2						
Green Ext Time (p_c), s		12.4		0.0	1.5	9.2						

Intersection Summary												
HCM 7th Control Delay, s/veh			18.1									
HCM 7th LOS			B									

Notes
User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

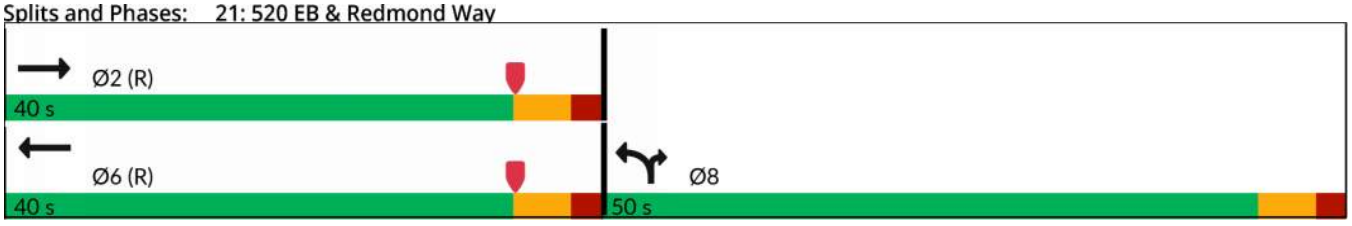
Lanes, Volumes, Timings
21: 520 EB & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1101	0	0	863	409	1311
Future Volume (vph)	1101	0	0	863	409	1311
Satd. Flow (prot)	5136	0	0	3574	3467	2814
Flt Permitted					0.950	
Satd. Flow (perm)	5136	0	0	3574	3467	2814
Satd. Flow (RTOR)						29
Confl. Peds. (#/hr)		8	8			16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1147	0	0	899	426	1366
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	10.0			10.0	5.0	5.0
Minimum Split (s)	37.9			15.9	37.9	37.9
Total Split (s)	40.0			40.0	50.0	50.0
Total Split (%)	44.4%			44.4%	55.6%	55.6%
Yellow Time (s)	3.9			3.9	3.9	3.9
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.9			5.9	5.9	5.9
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	31.6			31.6	46.6	46.6
Actuated g/C Ratio	0.35			0.35	0.52	0.52
v/c Ratio	0.64			0.72	0.24	0.93
Control Delay (s/veh)	14.3			25.9	12.6	33.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay (s/veh)	14.3			25.9	12.6	33.1
LOS	B			C	B	C
Approach Delay (s/veh)	14.3			25.9	28.2	
Approach LOS	B			C	C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay (s/veh): 23.5 Intersection LOS: C
Intersection Capacity Utilization 83.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: 520 EB & Redmond Way



Lanes, Volumes, Timings
22: 164 Ave NE & NE 76 St 03/21/2025

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	2	50	158	34	1	21	90	95	2	47	120	43
Future Volume (vph)	2	50	158	34	1	21	90	95	2	47	120	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			25				25				25	
Link Distance (ft)			539				724				311	
Travel Time (s)			14.7				19.7				8.5	
Confl. Peds. (#/hr)	122	1		84	7	84		1	84	122		7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control			Yield				Yield				Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	3	72	107	26
Future Volume (vph)	3	72	107	26
Ideal Flow (vphpl)	1900	1900	1900	1900
Link Speed (mph)			25	
Link Distance (ft)			149	
Travel Time (s)			4.1	
Confl. Peds. (#/hr)	1	7		122
Peak Hour Factor	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	3%	3%	3%	3%
Shared Lane Traffic (%)				
Sign Control			Yield	

Intersection Summary

Intersection	
Intersection Delay, s/veh	6.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	290	246	252	248
Demand Flow Rate, veh/h	293	246	257	256
Vehicles Circulating, veh/h	252	272	347	194
Vehicles Exiting, veh/h	198	332	198	324
Ped Vol Crossing Leg, #/h	122	7	84	1
Ped Cap Adj	0.977	0.999	0.988	1.000
Approach Delay, s/veh	6.2	5.7	6.6	5.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	293	246	257	256
Cap Entry Lane, veh/h	1067	1046	969	1132
Entry HV Adj Factor	0.990	1.000	0.981	0.969
Flow Entry, veh/h	290	246	252	248
Cap Entry, veh/h	1032	1045	939	1097
V/C Ratio	0.281	0.236	0.268	0.226
Control Delay, s/veh	6.2	5.7	6.6	5.4
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	1

Lanes, Volumes, Timings
23: 166th Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	159	43	26	82	70	23	98	20	19	81	47
Future Volume (vph)	114	159	43	26	82	70	23	98	20	19	81	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			10			10	
Link Distance (ft)		724			1313			308			226	
Travel Time (s)		19.7			35.8			21.0			15.4	
Confl. Peds. (#/hr)	5		49	49		5	9		72	72		9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Parking (#/hr)	0	0	0				0	0	0			
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	114	159	43	26	82	70	23	98	20	19	81	47
Future Vol, veh/h	114	159	43	26	82	70	23	98	20	19	81	47
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	0
Mvmt Flow	121	169	46	28	87	74	24	104	21	20	86	50
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	12.6	10	10.4	9.8
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	36%	15%	19%	0%
Vol Thru, %	70%	50%	46%	81%	0%
Vol Right, %	14%	14%	39%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	141	316	178	100	47
LT Vol	23	114	26	19	0
Through Vol	98	159	82	81	0
RT Vol	20	43	70	0	47
Lane Flow Rate	150	336	189	106	50
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.234	0.473	0.267	0.183	0.075
Departure Headway (Hd)	5.611	5.062	5.084	6.188	5.381
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	639	713	706	580	665
Service Time	3.649	3.091	3.119	3.926	3.118
HCM Lane V/C Ratio	0.235	0.471	0.268	0.183	0.075
HCM Control Delay, s/veh	10.4	12.6	10	10.3	8.6
HCM Lane LOS	B	B	A	B	A
HCM 95th-tile Q	0.9	2.6	1.1	0.7	0.2

Lanes, Volumes, Timings
24: 164th Ave NE & NE 74th St 03/21/2025

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	30	30	70	90	70
Future Volume (vph)	82	30	30	70	90	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10			10	10	
Link Distance (ft)	321			415	239	
Travel Time (s)	21.9			28.3	16.3	
Confl. Peds. (#/hr)	75	214	36			36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Parking (#/hr)	0	0	0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	82	30	30	70	90	70
Future Vol, veh/h	82	30	30	70	90	70
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	92	34	34	79	101	79
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8.4	8.2	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	30%	73%	0%
Vol Thru, %	70%	0%	56%
Vol Right, %	0%	27%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	100	112	160
LT Vol	30	82	0
Through Vol	70	0	90
RT Vol	0	30	70
Lane Flow Rate	112	126	180
Geometry Grp	1	1	1
Degree of Util (X)	0.139	0.158	0.204
Departure Headway (Hd)	4.44	4.518	4.076
Convergence, Y/N	Yes	Yes	Yes
Cap	810	795	883
Service Time	2.455	2.536	2.09
HCM Lane V/C Ratio	0.138	0.158	0.204
HCM Control Delay, s/veh	8.2	8.4	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.6	0.8

Lanes, Volumes, Timings
25: 166th Ave NE/166th Ave NE & NE 74th St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	42	83	45	44	82
Future Volume (vph)	53	42	83	45	44	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10		10			10
Link Distance (ft)	375		216			226
Travel Time (s)	25.6		14.7			15.4
Confl. Peds. (#/hr)	53	105		34	34	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	3%	3%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop		Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	42	83	45	44	82
Future Vol, veh/h	53	42	83	45	44	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	0	0	3	3
Mvmt Flow	58	46	90	49	48	89
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	8	7.8	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	35%
Vol Thru, %	65%	0%	65%
Vol Right, %	35%	44%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	128	95	126
LT Vol	0	53	44
Through Vol	83	0	82
RT Vol	45	42	0
Lane Flow Rate	139	103	137
Geometry Grp	1	1	1
Degree of Util (X)	0.158	0.125	0.164
Departure Headway (Hd)	4.08	4.366	4.311
Convergence, Y/N	Yes	Yes	Yes
Cap	885	825	819
Service Time	2.08	2.374	2.408
HCM Lane V/C Ratio	0.157	0.125	0.167
HCM Control Delay, s/veh	7.8	8	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.4	0.6

Lanes, Volumes, Timings
26: Bear Creek Pkwy & 164th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	122	846	516	33	66	72
Future Volume (vph)	122	846	516	33	66	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			150	0	125
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		500	450		401	
Travel Time (s)		11.4	10.2		27.3	
Confl. Peds. (#/hr)	12			12		18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Parking (#/hr)		0				
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	122	846	516	33	66	72
Future Vol, veh/h	122	846	516	33	66	72
Conflicting Peds, #/hr	12	0	0	12	0	18
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	125
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	127	881	538	34	69	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	584	0	-	0	1685	568
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	1135	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	996	-	-	-	103	523
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	307	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	986	-	-	-	88	510
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	303	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.16	0	21.45
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	986	-	-	-	209	510
HCM Lane V/C Ratio	0.129	-	-	-	0.328	0.147
HCM Ctrl Dly (s/v)	9.2	-	-	-	30.4	13.3
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.4	0.5

Lanes, Volumes, Timings
27: Bear Creek Pkwy & 166th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	84	829	432	65	48	117
Future Volume (vph)	84	829	432	65	48	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	1%		-1%	
Storage Length (ft)	200			150	0	150
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		220	462		360	
Travel Time (s)		5.0	10.5		24.5	
Confl. Peds. (#/hr)	22			22		27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	829	432	65	48	117
Future Vol, veh/h	84	829	432	65	48	117
Conflicting Peds, #/hr	22	0	0	22	0	27
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	-1	1	-	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	88	873	455	68	51	123

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	545	0	-	0	1526	504
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	1049	-
Critical Hdwy	4.11	-	-	-	6.23	6.13
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	-	-	-	-	5.23	-
Follow-up Hdwy	2.209	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1029	-	-	-	140	574
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	356	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1010	-	-	-	123	551
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	349	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.82	0	16.21
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1010	-	-	-	250	551
HCM Lane V/C Ratio	0.088	-	-	-	0.202	0.224
HCM Ctrl Dly (s/v)	8.9	-	-	-	23	13.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.7	0.9

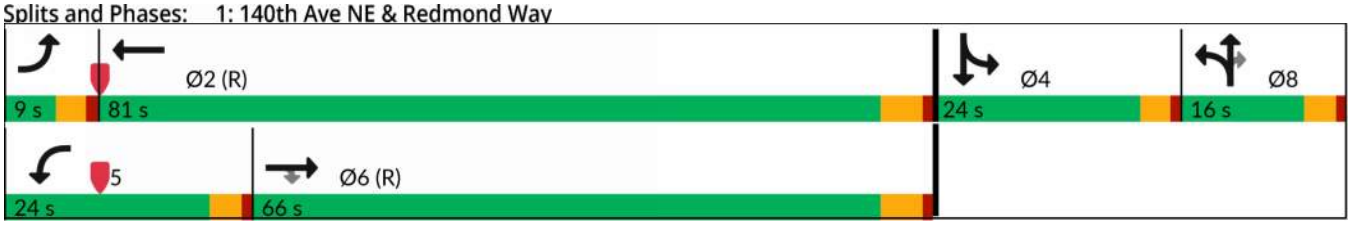
2030 With Project (Phases 1 to 3 of Scenario 2)

Lanes, Volumes, Timings
1: 140th Ave NE & Redmond Way 03/21/2025

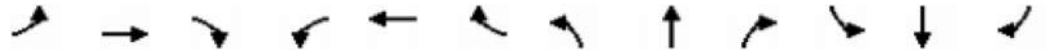
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1218	108	160	1590	7	82	10	55	17	8	23
Future Volume (vph)	31	1218	108	160	1590	7	82	10	55	17	8	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			4%			0%			7%	
Storage Length (ft)	125		250	250		0	0		200	0		30
Storage Lanes	1		1	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			35			25	
Link Distance (ft)		535			1832			797			317	
Travel Time (s)		9.1			31.2			15.5			8.6	
Confl. Peds. (#/hr)	8		2	2		8	11					11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6						8			
Detector Phase	1	6	6	5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0		9.0	9.0	9.0	24.0	24.0	
Total Split (s)	9.0	66.0	66.0	24.0	81.0		16.0	16.0	16.0	24.0	24.0	
Total Split (%)	6.9%	50.8%	50.8%	18.5%	62.3%		12.3%	12.3%	12.3%	18.5%	18.5%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0			4.0	4.0		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	

Intersection Summary
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: 140th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
1: 140th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1218	108	160	1590	7	82	10	55	17	8	23
Future Volume (veh/h)	31	1218	108	160	1590	7	82	10	55	17	8	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1791	1791	1791	1900	1900	1900	1611	1611	1611
Adj Flow Rate, veh/h	34	1324	0	174	1728	8	89	11	0	18	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	52	2420		200	2522	12	110	14		50	25	
Arrive On Green	0.03	0.64	0.00	0.12	0.73	0.73	0.07	0.07	0.00	0.05	0.05	0.00
Sat Flow, veh/h	1908	3806	1697	1706	3473	16	1619	200	1610	1040	520	0
Grp Volume(v), veh/h	34	1324	0	174	846	890	100	0	0	27	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1697	1706	1701	1788	1819	0	1610	1559	0	0
Q Serve(g_s), s	2.3	25.2	0.0	13.0	35.2	35.3	7.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	2.3	25.2	0.0	13.0	35.2	35.3	7.0	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.89		1.00	0.67		0.00
Lane Grp Cap(c), veh/h	52	2420		200	1235	1298	124	0		74	0	
V/C Ratio(X)	0.66	0.55		0.87	0.68	0.69	0.81	0.00		0.36	0.00	
Avail Cap(c_a), veh/h	73	2420		262	1235	1298	168	0		240	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.6	13.2	0.0	56.4	9.7	9.7	59.7	0.0	0.0	60.0	0.0	0.0
Incr Delay (d2), s/veh	13.1	0.9	0.0	20.9	3.1	3.0	18.2	0.0	0.0	2.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	10.2	0.0	6.7	12.1	12.7	3.9	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.8	14.1	0.0	77.3	12.8	12.7	78.0	0.0	0.0	62.2	0.0	0.0
LnGrp LOS	E	B		E	B	B	E			E		
Approach Vol, veh/h		1358			1910			100			27	
Approach Delay, s/veh		15.6			18.6			78.0			62.2	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	99.4		10.2	19.2	87.7		12.9				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	5.0	76.0		20.0	20.0	61.0		12.0				
Max Q Clear Time (g_c+I1), s	4.3	37.3		4.2	15.0	27.2		9.0				
Green Ext Time (p_c), s	0.0	25.9		0.0	0.2	17.3		0.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	19.5
HCM 7th LOS	B

Notes

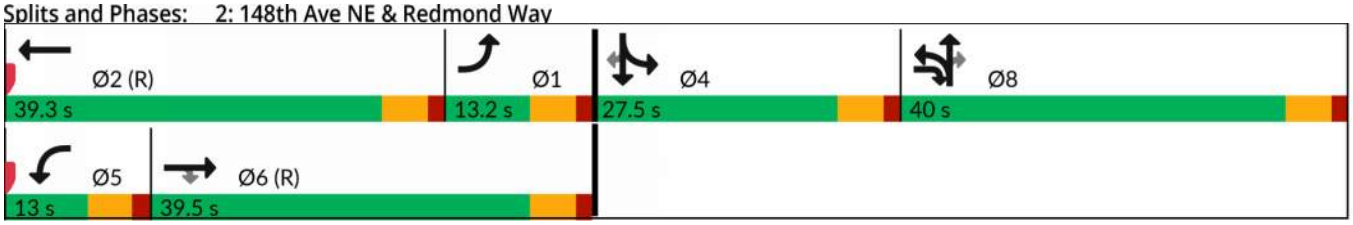
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
2: 148th Ave NE & Redmond Way 03/21/2025

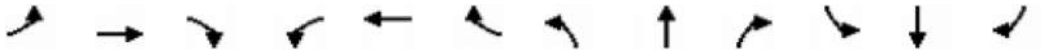
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	903	185	175	881	11	654	649	380	33	395	278
Future Volume (vph)	179	903	185	175	881	11	654	649	380	33	395	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-3%			3%	
Storage Length (ft)	375		150	250		0	275		200	200		250
Storage Lanes	2		1	2		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		957			1580			2623			1894	
Travel Time (s)		16.3			26.9			44.7			32.3	
Confl. Peds. (#/hr)	4		4	4		4			9	9		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)							35%					
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	1	6	8	5	2		8	8		4	4	
Permitted Phases			6						8			4
Detector Phase	1	6	8	5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	27.5	24.5	10.5	25.5		24.5	24.5	24.5	27.5	27.5	27.5
Total Split (s)	13.2	39.5	40.0	13.0	39.3		40.0	40.0	40.0	27.5	27.5	27.5
Total Split (%)	11.0%	32.9%	33.3%	10.8%	32.8%		33.3%	33.3%	33.3%	22.9%	22.9%	22.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 87 (73%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 2: 148th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
2: 148th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	903	185	175	881	11	654	649	380	33	395	278
Future Volume (veh/h)	179	903	185	175	881	11	654	649	380	33	395	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	2003	2003	2003	1817	1817	1817
Adj Flow Rate, veh/h	192	971	199	188	947	12	784	585	0	35	425	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	338	1182	1013	218	1020	13	1097	576		270	539	
Arrive On Green	0.09	0.31	0.31	0.04	0.19	0.19	0.29	0.29	0.00	0.05	0.05	0.00
Sat Flow, veh/h	3701	3806	1691	3483	3622	46	3815	2003	1697	1731	3453	1540
Grp Volume(v), veh/h	192	971	199	188	468	491	784	585	0	35	425	0
Grp Sat Flow(s),veh/h/ln	1850	1903	1691	1742	1791	1877	1908	2003	1697	1731	1726	1540
Q Serve(g_s), s	6.0	28.3	6.4	6.4	30.9	30.9	22.1	34.5	0.0	2.3	14.6	0.0
Cycle Q Clear(g_c), s	6.0	28.3	6.4	6.4	30.9	30.9	22.1	34.5	0.0	2.3	14.6	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	1182	1013	218	504	529	1097	576		270	539	
V/C Ratio(X)	0.57	0.82	0.20	0.86	0.93	0.93	0.71	1.02		0.13	0.79	
Avail Cap(c_a), veh/h	338	1182	1013	218	504	529	1097	576		317	633	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	0.20	0.20	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	52.2	38.3	11.0	57.0	47.5	47.5	38.3	42.8	0.0	49.1	55.0	0.0
Incr Delay (d2), s/veh	2.2	6.5	0.4	19.9	18.7	18.1	0.5	20.9	0.0	0.2	5.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	13.9	4.6	3.4	16.7	17.4	10.1	19.8	0.0	1.0	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.5	44.8	11.4	76.9	66.2	65.6	38.8	63.6	0.0	49.3	60.5	0.0
LnGrp LOS	D	D	B	E	E	E	D	F		D	E	
Approach Vol, veh/h		1362			1147			1369			460	
Approach Delay, s/veh		41.3			67.7			49.4			59.6	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	39.3		24.2	13.0	42.8		40.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	7.7	33.8		22.0	7.5	34.0		34.5				
Max Q Clear Time (g_c+I1), s	8.0	32.9		16.6	8.4	30.3		36.5				
Green Ext Time (p_c), s	0.0	0.5		1.6	0.0	2.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	52.8	
HCM 7th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

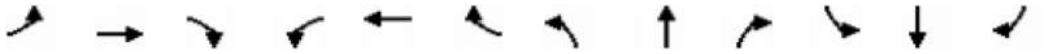
Lanes, Volumes, Timings
3: Willows Rd NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1378	14	26	1047	281	7	6	20	597	17	16
Future Volume (vph)	16	1378	14	26	1047	281	7	6	20	597	17	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%			5%	
Storage Length (ft)	150		0	125		30	0		0	275		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		1580			850			188			922	
Travel Time (s)		26.9			14.5			5.1			18.0	
Confl. Peds. (#/hr)	12		4	4		12	19		5	5		19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)										47%		
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases												
Detector Phase	1	6		5	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	12.0		5.0	12.0		5.0	5.0		6.0	6.0	
Minimum Split (s)	11.0	19.0		10.0	19.0		23.0	23.0		25.0	25.0	
Total Split (s)	11.0	56.0		10.0	55.0		23.0	23.0		31.0	31.0	
Total Split (%)	9.2%	46.7%		8.3%	45.8%		19.2%	19.2%		25.8%	25.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 32 (27%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willows Rd NE & Redmond Way

HCM 7th Signalized Intersection Summary
3: Willows Rd NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1378	14	26	1047	281	7	6	20	597	17	16
Future Volume (veh/h)	16	1378	14	26	1047	281	7	6	20	597	17	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.91	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	1900	1900	1900	1738	1738	1738
Adj Flow Rate, veh/h	17	1482	15	28	1126	0	8	6	22	671	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	41	1640	17	233	1909		22	17	61	716	376	0
Arrive On Green	0.01	0.14	0.14	0.26	1.00	0.00	0.06	0.06	0.06	0.22	0.00	0.00
Sat Flow, veh/h	1908	3859	39	1795	3676	0	354	265	973	3310	1738	0
Grp Volume(v), veh/h	17	730	767	28	1126	0	36	0	0	671	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1995	1795	1791	0	1592	0	0	1655	1738	0
Q Serve(g_s), s	1.1	45.3	45.4	1.4	0.0	0.0	2.6	0.0	0.0	23.9	0.0	0.0
Cycle Q Clear(g_c), s	1.1	45.3	45.4	1.4	0.0	0.0	2.6	0.0	0.0	23.9	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.00	0.22		0.61	1.00		0.00
Lane Grp Cap(c), veh/h	41	809	848	233	1909		99	0	0	716	376	0
V/C Ratio(X)	0.41	0.90	0.90	0.12	0.59		0.36	0.00	0.00	0.94	0.00	0.00
Avail Cap(c_a), veh/h	95	809	848	233	1909		239	0	0	717	377	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	0.71	0.71	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.8	49.2	49.2	39.2	0.0	0.0	54.0	0.0	0.0	46.2	0.0	0.0
Incr Delay (d2), s/veh	2.2	8.1	7.8	0.1	1.0	0.0	0.8	0.0	0.0	20.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	24.8	26.0	0.6	0.3	0.0	1.1	0.0	0.0	11.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.0	57.2	57.0	39.3	1.0	0.0	54.8	0.0	0.0	66.3	0.0	0.0
LnGrp LOS	E	E	E	D	A		D			E		
Approach Vol, veh/h		1514			1154			36			671	
Approach Delay, s/veh		57.1			1.9			54.8			66.3	
Approach LOS		E			A			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	68.9		31.0	20.5	56.0		12.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	50.0		26.0	5.0	51.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0		25.9	3.4	47.4		4.6				
Green Ext Time (p_c), s	0.0	21.5		0.0	0.0	3.3		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	40.0	
HCM 7th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1366	642	217	996	363	194
Future Volume (vph)	1366	642	217	996	363	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	-4%	
Storage Length (ft)		125	150		0	75
Storage Lanes		1	2		1	0
Taper Length (ft)			25		25	
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	35	
Link Distance (ft)	850			951	587	
Travel Time (s)	19.3			21.6	11.4	
Confl. Peds. (#/hr)		14	14			2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov	Prot	NA	Prot	
Protected Phases	6	4	5	2	4	
Permitted Phases		6				
Detector Phase	6	4	5	2	4	
Switch Phase						
Minimum Initial (s)	8.0	6.0	5.0	20.0	6.0	
Minimum Split (s)	22.0	25.0	10.0	25.0	25.0	
Total Split (s)	57.0	48.0	15.0	72.0	48.0	
Total Split (%)	47.5%	40.0%	12.5%	60.0%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: West Lake Sammamish Pkwy NE & Redmond Way

HCM 7th Signalized Intersection Summary
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1366	642	217	996	363	194
Future Volume (veh/h)	1366	642	217	996	363	194
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2003	2003	1832	1832	2027	2027
Adj Flow Rate, veh/h	1380	648	219	1006	367	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	1649	724	772	2448	411	
Arrive On Green	0.87	0.87	0.46	1.00	0.21	0.00
Sat Flow, veh/h	3906	1670	3385	3573	1926	0
Grp Volume(v), veh/h	1380	648	219	1006	368	0
Grp Sat Flow(s),veh/h/ln	1903	1670	1693	1741	1931	0
Q Serve(g_s), s	21.1	27.7	4.8	0.0	22.2	0.0
Cycle Q Clear(g_c), s	21.1	27.7	4.8	0.0	22.2	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	1649	724	772	2448	412	
V/C Ratio(X)	0.84	0.90	0.28	0.41	0.89	
Avail Cap(c_a), veh/h	1649	724	772	2448	692	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.87	0.87	0.93	0.00
Uniform Delay (d), s/veh	5.9	6.4	26.5	0.0	45.8	0.0
Incr Delay (d2), s/veh	3.0	9.9	0.2	0.4	7.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.7	1.9	0.2	11.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.0	16.2	26.7	0.4	53.6	0.0
LnGrp LOS	A	B	C	A	D	
Approach Vol, veh/h	2028			1225	368	
Approach Delay, s/veh	11.3			5.1	53.6	
Approach LOS	B			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		89.4		30.6	32.4	57.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		67.0		43.0	10.0	52.0
Max Q Clear Time (g_c+I1), s		2.0		24.2	6.8	29.7
Green Ext Time (p_c), s		6.0		1.4	0.3	12.4

Intersection Summary	
HCM 7th Control Delay, s/veh	13.5
HCM 7th LOS	B

Notes

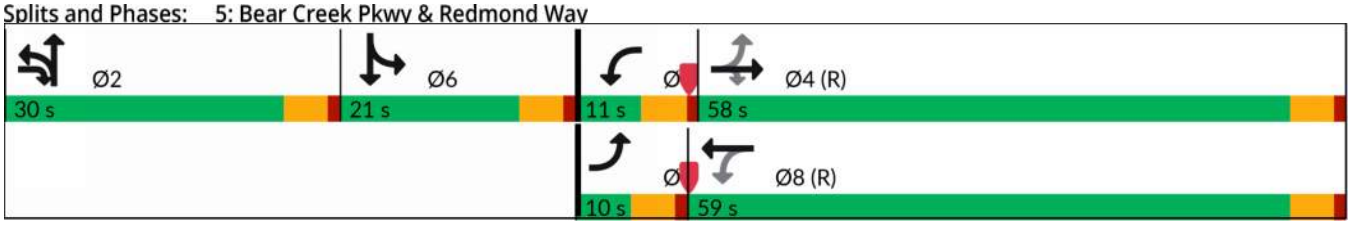
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: Bear Creek Pkwy & Redmond Way 03/21/2025

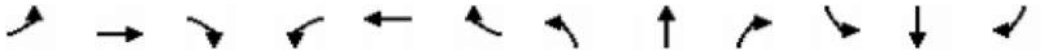
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1000	523	72	927	20	309	5	81	24	6	19
Future Volume (vph)	11	1000	523	72	927	20	309	5	81	24	6	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-4%			0%			0%			0%	
Storage Length (ft)	150		175	150		0	125		0	0		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		951			828			488			167	
Travel Time (s)		21.6			18.8			11.1			4.6	
Confl. Peds. (#/hr)	9		15	15		9	9		19	19		9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							35%					
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases	4		4	8								
Detector Phase	7	4	2	3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	21.0		24.0	24.0		21.0	21.0	
Total Split (s)	10.0	58.0	30.0	11.0	59.0		30.0	30.0		21.0	21.0	
Total Split (%)	8.3%	48.3%	25.0%	9.2%	49.2%		25.0%	25.0%		17.5%	17.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes				
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bear Creek Pkwy & Redmond Way



HCM 7th Signalized Intersection Summary
5: Bear Creek Pkwy & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1000	523	72	927	20	309	5	81	24	6	19
Future Volume (veh/h)	11	1000	523	72	927	20	309	5	81	24	6	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2042	2042	2042	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1031	539	74	956	21	204	166	84	25	6	20
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	368	2219	1257	317	2139	47	293	190	96	111	22	73
Arrive On Green	0.03	1.00	1.00	0.04	0.60	0.60	0.16	0.16	0.16	0.06	0.06	0.06
Sat Flow, veh/h	1945	3880	1708	1795	3582	79	1810	1174	594	1810	356	1187
Grp Volume(v), veh/h	11	1031	539	74	478	499	204	0	250	25	0	26
Grp Sat Flow(s),veh/h/ln	1945	1940	1708	1795	1791	1870	1810	0	1768	1810	0	1543
Q Serve(g_s), s	0.3	0.0	0.0	2.0	17.6	17.6	12.8	0.0	16.6	1.6	0.0	1.9
Cycle Q Clear(g_c), s	0.3	0.0	0.0	2.0	17.6	17.6	12.8	0.0	16.6	1.6	0.0	1.9
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.34	1.00		0.77
Lane Grp Cap(c), veh/h	368	2219	1257	317	1070	1117	293	0	286	111	0	95
V/C Ratio(X)	0.03	0.46	0.43	0.23	0.45	0.45	0.70	0.00	0.87	0.22	0.00	0.27
Avail Cap(c_a), veh/h	424	2219	1257	338	1070	1117	377	0	368	241	0	206
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.2	0.0	0.0	9.5	13.3	13.3	47.5	0.0	49.1	53.6	0.0	53.8
Incr Delay (d2), s/veh	0.0	0.3	0.5	0.2	1.0	1.0	3.2	0.0	15.7	1.0	0.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.2	0.8	7.2	7.5	6.0	0.0	8.5	0.8	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.2	0.3	0.5	9.7	14.3	14.2	50.7	0.0	64.8	54.6	0.0	55.3
LnGrp LOS	B	A	A	A	B	B	D		E	D		E
Approach Vol, veh/h		1581			1051			454			51	
Approach Delay, s/veh		0.4			13.9			58.5			55.0	
Approach LOS		A			B			E			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.4	9.6	73.6	12.4	6.5	76.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	6.0	53.0	16.0	5.0	54.0
Max Q Clear Time (g_c+I1), s	18.6	4.0	2.0	3.9	2.3	19.6
Green Ext Time (p_c), s	0.9	0.0	8.0	0.1	0.0	3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	14.2
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

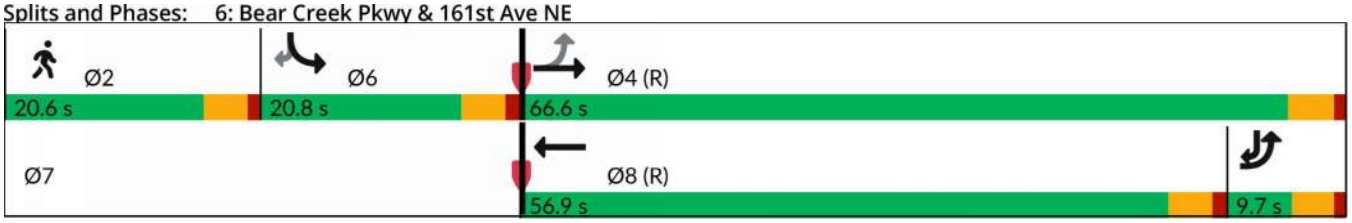
Lanes, Volumes, Timings
6: Bear Creek Pkwy & 161st Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	33	495	357	190	110	80	
Future Volume (vph)	33	495	357	190	110	80	
Satd. Flow (prot)	1787	1693	1513	0	1787	1599	
Flt Permitted	0.309				0.950		
Satd. Flow (perm)	581	1693	1513	0	1612	1445	
Satd. Flow (RTOR)			34			91	
Confl. Peds. (#/hr)	48			48	29	23	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	
Parking (#/hr)		0	0	0			
Shared Lane Traffic (%)							
Lane Group Flow (vph)	38	563	622	0	125	91	
Turn Type	pm+pt	NA	NA		Prot	pm+ov	
Protected Phases	7	4	8		6	7	2
Permitted Phases	4					6	
Detector Phase	7	4	8		6	7	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.4	9.6	20.6		20.6	9.4	20.6
Total Split (s)	9.7	66.6	56.9		20.8	9.7	20.6
Total Split (%)	9.0%	61.7%	52.7%		19.3%	9.0%	19%
Yellow Time (s)	3.4	3.6	3.6		3.6	3.4	3.6
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.4	4.6	4.6		4.6	4.4	
Lead/Lag	Lag		Lead		Lag	Lag	Lead
Lead-Lag Optimize?							
Recall Mode	None	C-Max	C-Max		None	None	None
Act Effct Green (s)	73.9	73.7	65.9		12.7	18.2	
Actuated g/C Ratio	0.68	0.68	0.61		0.12	0.17	
v/c Ratio	0.08	0.49	0.66		0.60	0.28	
Control Delay (s/veh)	10.1	12.7	20.4		56.3	6.8	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	10.1	12.7	20.4		56.3	6.8	
LOS	B	B	C		E	A	
Approach Delay (s/veh)		12.6	20.4		35.5		
Approach LOS		B	C		D		

Intersection Summary

Cycle Length: 108
Actuated Cycle Length: 108
Offset: 6 (6%), Referenced to phase 4:EBTL and 8:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay (s/veh): 19.4 Intersection LOS: B
Intersection Capacity Utilization 49.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bear Creek Pkwy & 161st Ave NE

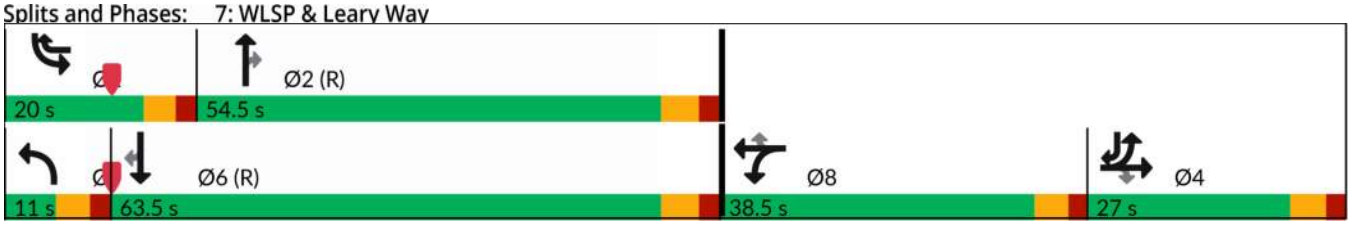


Lanes, Volumes, Timings
7: WLSP & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	287	11	213	285	525	87	15	1013	1164	209	876	584
Future Volume (vph)	287	11	213	285	525	87	15	1013	1164	209	876	584
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-6%			3%			0%			0%	
Storage Length (ft)	0		175	200		150	200		275	175		0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		718			834			1781			1175	
Travel Time (s)		16.3			19.0			30.4			20.0	
Confl. Peds. (#/hr)	34					34			3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)				10%								
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	4	4		8	8	1	5	2		1	6	4
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	1	5	2	2	1	6	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	7.0	5.0	10.0	10.0	7.0	10.0	5.0
Minimum Split (s)	10.9	10.9	10.9	38.5	38.5	12.5	10.5	33.9	33.9	12.5	15.9	10.9
Total Split (s)	27.0	27.0	27.0	38.5	38.5	20.0	11.0	54.5	54.5	20.0	63.5	27.0
Total Split (%)	19.3%	19.3%	19.3%	27.5%	27.5%	14.3%	7.9%	38.9%	38.9%	14.3%	45.4%	19.3%
Yellow Time (s)	3.9	3.9	3.9	3.5	3.5	3.5	3.5	3.9	3.9	3.5	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.9	5.9	5.5	5.5	5.5	5.5	5.9	5.9	5.5	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	None

Intersection Summary
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 92 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 7: WLSP & Leary Way



HCM 7th Signalized Intersection Summary
7: WLSP & Leary Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	11	213	285	525	87	15	1013	1164	209	876	584
Future Volume (veh/h)	287	11	213	285	525	87	15	1013	1164	209	876	584
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2076	2076	2076	1817	1817	1817	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	12	224	284	575	92	16	1066	0	220	922	615
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	287	11	247	381	799	482	29	1290		184	1599	951
Arrive On Green	0.15	0.15	0.15	0.22	0.22	0.22	0.01	0.12	0.00	0.10	0.45	0.45
Sat Flow, veh/h	1905	76	1640	1731	3635	1469	1781	3554	1585	1781	3554	1582
Grp Volume(v), veh/h	314	0	224	284	575	92	16	1066	0	220	922	615
Grp Sat Flow(s),veh/h/ln	1981	0	1640	1731	1817	1469	1781	1777	1585	1781	1777	1582
Q Serve(g_s), s	21.1	0.0	18.8	21.4	20.5	6.3	1.3	41.0	0.0	14.5	27.0	35.6
Cycle Q Clear(g_c), s	21.1	0.0	18.8	21.4	20.5	6.3	1.3	41.0	0.0	14.5	27.0	35.6
Prop In Lane	0.96		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	0	247	381	799	482	29	1290		184	1599	951
V/C Ratio(X)	1.05	0.00	0.91	0.75	0.72	0.19	0.54	0.83		1.19	0.58	0.65
Avail Cap(c_a), veh/h	299	0	247	408	857	506	70	1290		184	1599	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.93	0.93	0.93	0.31	0.31	0.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	59.5	0.0	58.5	51.0	50.6	34.2	69.1	57.3	0.0	62.7	28.6	18.3
Incr Delay (d2), s/veh	66.4	0.0	33.5	7.1	2.9	0.3	4.7	2.0	0.0	124.5	1.4	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	0.0	10.1	10.1	9.7	2.3	0.6	20.0	0.0	12.9	11.5	19.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	125.8	0.0	91.9	58.0	53.5	34.4	73.8	59.3	0.0	187.2	30.0	21.3
LnGrp LOS	F		F	E	D	C	E	E		F	C	C
Approach Vol, veh/h		538			951			1082			1757	
Approach Delay, s/veh		111.7			53.0			59.5			46.6	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	56.7		27.0	7.8	68.9		36.3				
Change Period (Y+Rc), s	5.5	5.9		5.9	5.5	5.9		5.5				
Max Green Setting (Gmax), s	14.5	48.6		21.1	5.5	57.6		33.0				
Max Q Clear Time (g_c+I1), s	16.5	43.0		23.1	3.3	37.6		23.4				
Green Ext Time (p_c), s	0.0	3.3		0.0	0.0	11.2		5.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	59.3
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
8: Leary Way & 159th Pl NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø6
Lane Configurations								
Traffic Volume (vph)	99	1306	876	17	26	79		
Future Volume (vph)	99	1306	876	17	26	79		
Satd. Flow (prot)	1787	1881	3550	0	1805	1615		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1701	1881	3550	0	1805	1615		
Satd. Flow (RTOR)			2			81		
Confl. Peds. (#/hr)	41			41		29		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%		
Mid-Block Traffic (%)		0%	0%		50%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	102	1346	921	0	27	81		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	7	4!	8		2 6!	6 7	2	6
Permitted Phases								
Detector Phase	7	4	8		2 6	7		
Switch Phase								
Minimum Initial (s)	5.0	7.0	7.0				4.0	6.0
Minimum Split (s)	10.0	12.0	20.0				21.0	11.0
Total Split (s)	19.0	105.0	75.0				21.0	11.0
Total Split (%)	15.1%	83.3%	59.5%				17%	9%
Yellow Time (s)	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	1.0	1.0	1.0				1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0					
Total Lost Time (s)	5.0	5.0	5.0					
Lead/Lag	Lead							Lag
Lead-Lag Optimize?	Yes							Yes
Recall Mode	None	C-Max	C-Max				None	None
Act Effct Green (s)	11.1	107.3	83.7		17.6	17.7		
Actuated g/C Ratio	0.09	0.85	0.66		0.14	0.14		
v/c Ratio	0.65	0.84	0.39		0.11	0.27		
Control Delay (s/veh)	74.3	14.2	12.8		30.3	11.3		
Queue Delay	0.0	2.5	0.0		0.0	0.0		
Total Delay (s/veh)	74.3	16.7	12.8		30.3	11.3		
LOS	E	B	B		C	B		
Approach Delay (s/veh)		20.8	12.8		16.1			
Approach LOS		C	B		B			

Intersection Summary			
Cycle Length: 126			
Actuated Cycle Length: 126			
Offset: 0 (0%), Referenced to phase 8:WBT and 4:EBT, Start of 1st Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 17.6		Intersection LOS: B	
Intersection Capacity Utilization 86.6%		ICU Level of Service E	
Analysis Period (min) 15			

! Phase conflict between lane groups.

Splits and Phases: 8: Leary Way & 159th Pl NE

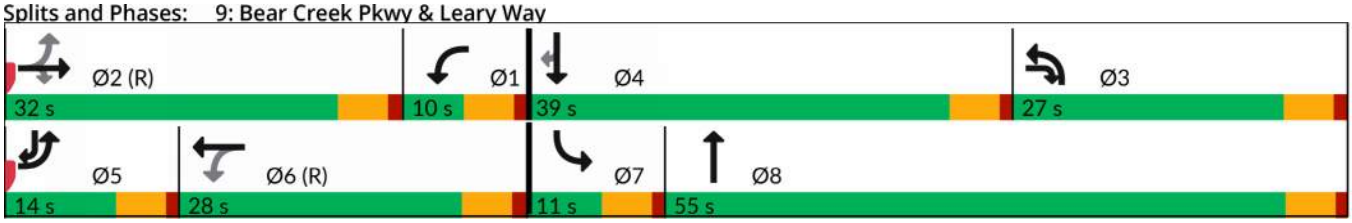
Lanes, Volumes, Timings
9: Bear Creek Pkwy & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	574	589	18	334	82	393	306	13	44	490	86
Future Volume (vph)	168	574	589	18	334	82	393	306	13	44	490	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		225	175		0	190		0	275		100
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		664			421			452			692	
Travel Time (s)		15.1			9.6			10.3			15.7	
Confl. Peds. (#/hr)	12		6	6		12	6		17	17		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8		7	4	5
Permitted Phases	2		2	6								4
Detector Phase	5	2	3	1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	5.0
Minimum Split (s)	10.0	26.2	11.2	10.0	24.2		11.2	28.0		10.0	26.0	10.0
Total Split (s)	14.0	32.0	27.0	10.0	28.0		27.0	55.0		11.0	39.0	14.0
Total Split (%)	13.0%	29.6%	25.0%	9.3%	25.9%		25.0%	50.9%		10.2%	36.1%	13.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.2	1.2	1.0	1.2		1.2	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.2	5.2	5.0	5.2		5.2	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	None

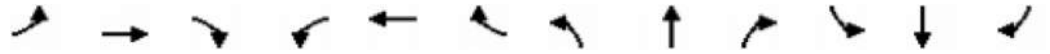
Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 84 (78%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bear Creek Pkwy & Leary Way



HCM 7th Signalized Intersection Summary
9: Bear Creek Pkwy & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	574	589	18	334	82	393	306	13	44	490	86
Future Volume (veh/h)	168	574	589	18	334	82	393	306	13	44	490	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	171	586	601	18	341	84	401	312	13	45	500	88
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	236	882	609	344	853	207	490	701	29	62	539	582
Arrive On Green	0.08	0.25	0.25	0.13	0.30	0.30	0.14	0.39	0.39	0.03	0.29	0.29
Sat Flow, veh/h	1781	3554	1547	1795	2845	690	3456	1782	74	1795	1885	1569
Grp Volume(v), veh/h	171	586	601	18	213	212	401	0	325	45	500	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1547	1795	1791	1744	1728	0	1856	1795	1885	1569
Q Serve(g_s), s	8.9	16.0	25.9	0.0	10.2	10.5	12.2	0.0	13.9	2.7	27.8	2.2
Cycle Q Clear(g_c), s	8.9	16.0	25.9	0.0	10.2	10.5	12.2	0.0	13.9	2.7	27.8	2.2
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	236	882	609	344	537	523	490	0	731	62	539	582
V/C Ratio(X)	0.73	0.66	0.99	0.05	0.40	0.41	0.82	0.00	0.44	0.73	0.93	0.15
Avail Cap(c_a), veh/h	236	882	609	344	537	523	698	0	859	100	593	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	0.82	0.00	0.82	0.85	0.85	0.85
Uniform Delay (d), s/veh	37.2	36.6	32.6	34.7	30.0	30.1	45.0	0.0	24.1	51.7	37.5	9.0
Incr Delay (d2), s/veh	4.8	1.8	21.9	0.0	2.2	2.3	4.3	0.0	0.3	13.2	17.6	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.1	12.0	0.4	4.7	4.7	5.5	0.0	6.1	1.4	15.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.0	38.4	54.5	34.7	32.2	32.5	49.3	0.0	24.4	64.8	55.1	9.1
LnGrp LOS	D	D	D	C	C	C	D		C	E	E	A
Approach Vol, veh/h		1358			443			726			633	
Approach Delay, s/veh		46.0			32.4			38.1			49.4	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	32.0	20.5	35.9	14.0	37.6	8.7	47.7
Change Period (Y+Rc), s	5.2	* 5.2	5.2	5.0	5.0	5.2	5.0	* 5.2
Max Green Setting (Gmax), s	5.0	* 27	21.8	34.0	9.0	22.8	6.0	* 50
Max Q Clear Time (g_c+I1), s	2.0	27.9	14.2	29.8	10.9	12.5	4.7	15.9
Green Ext Time (p_c), s	0.0	0.0	1.2	1.1	0.0	1.3	0.0	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	43.0
HCM 7th LOS	D

Notes

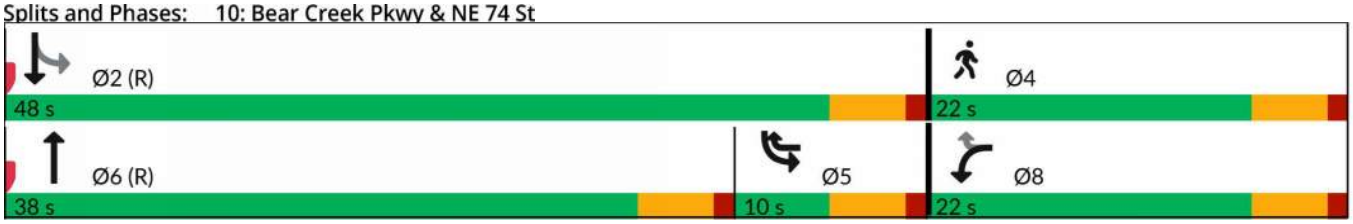
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
10: Bear Creek Pkwy & NE 74 St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	24	252	604	11	160	956	
Future Volume (vph)	24	252	604	11	160	956	
Satd. Flow (prot)	1805	1615	1857	0	1787	1881	
Flt Permitted	0.950				0.312		
Satd. Flow (perm)	1641	1615	1857	0	581	1881	
Satd. Flow (RTOR)		176	2				
Confl. Peds. (#/hr)	44			20	20		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	24	257	627	0	163	976	
Turn Type	Prot	pm+ov	NA		pm+pt	NA	
Protected Phases	8	5	6		5	2	4
Permitted Phases		8			2		
Detector Phase	8	5	6		5	2	
Switch Phase							
Minimum Initial (s)	7.0	4.0	8.0		4.0	5.0	8.0
Minimum Split (s)	12.0	9.0	23.0		9.0	10.0	22.0
Total Split (s)	22.0	10.0	38.0		10.0	48.0	22.0
Total Split (%)	31.4%	14.3%	54.3%		14.3%	68.6%	31%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0	
Lead/Lag		Lag	Lead		Lag		
Lead-Lag Optimize?		Yes	Yes		Yes		
Recall Mode	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	13.0	19.3	40.7		51.8	53.8	
Actuated g/C Ratio	0.19	0.28	0.58		0.74	0.77	
v/c Ratio	0.07	0.45	0.58		0.31	0.68	
Control Delay (s/veh)	21.4	8.1	15.1		8.5	12.0	
Queue Delay	0.0	0.0	0.0		0.0	0.7	
Total Delay (s/veh)	21.4	8.1	15.1		8.5	12.7	
LOS	C	A	B		A	B	
Approach Delay (s/veh)	9.3		15.1			12.1	
Approach LOS	A		B			B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay (s/veh): 12.6	Intersection LOS: B
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Bear Creek Pkwy & NE 74 St



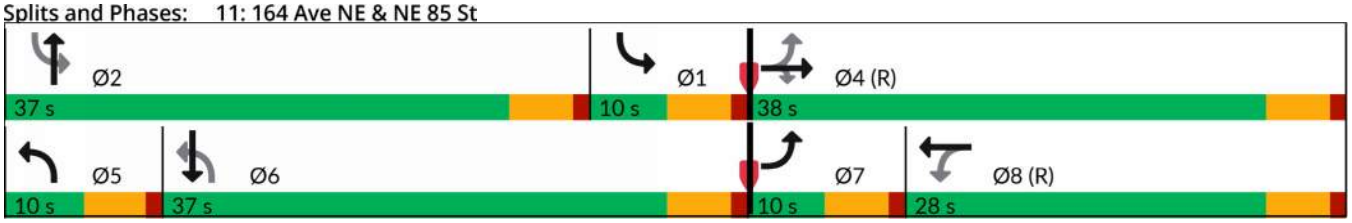
Lanes, Volumes, Timings
11: 164 Ave NE & NE 85 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	365	70	8	209	172	30	517	20	170	377	36
Future Volume (vph)	70	365	70	8	209	172	30	517	20	170	377	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		0	250		0	240		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			30	
Link Distance (ft)		469			304			659			473	
Travel Time (s)		10.7			6.9			16.0			10.8	
Confl. Peds. (#/hr)	12					12	22					22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8			6			2		
Detector Phase	7	4	4	8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0		10.0	22.0		10.0	27.0	
Total Split (s)	10.0	38.0	38.0	28.0	28.0		10.0	37.0		10.0	37.0	
Total Split (%)	11.8%	44.7%	44.7%	32.9%	32.9%		11.8%	43.5%		11.8%	43.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max		None	None		None	None	

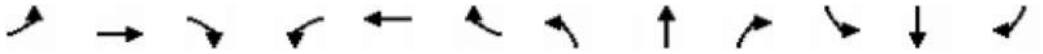
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 11: 164 Ave NE & NE 85 St



HCM 7th Signalized Intersection Summary
11: 164 Ave NE & NE 85 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	365	70	8	209	172	30	517	20	170	377	36
Future Volume (veh/h)	70	365	70	8	209	172	30	517	20	170	377	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	74	384	74	8	220	181	32	544	21	179	397	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	306	837	700	366	318	262	286	585	23	217	594	57
Arrive On Green	0.05	0.44	0.44	0.33	0.33	0.33	0.03	0.32	0.32	0.06	0.35	0.35
Sat Flow, veh/h	1810	1900	1588	941	955	786	1795	1800	69	1795	1688	162
Grp Volume(v), veh/h	74	384	74	8	0	401	32	0	565	179	0	435
Grp Sat Flow(s),veh/h/ln	1810	1900	1588	941	0	1741	1795	0	1870	1795	0	1850
Q Serve(g_s), s	2.2	12.0	2.3	0.5	0.0	17.0	1.0	0.0	24.8	2.9	0.0	16.9
Cycle Q Clear(g_c), s	2.2	12.0	2.3	3.4	0.0	17.0	1.0	0.0	24.8	2.9	0.0	16.9
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	306	837	700	366	0	580	286	0	608	217	0	651
V/C Ratio(X)	0.24	0.46	0.11	0.02	0.00	0.69	0.11	0.00	0.93	0.83	0.00	0.67
Avail Cap(c_a), veh/h	325	837	700	366	0	580	336	0	704	218	0	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.83	0.00	0.83	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	16.7	14.0	21.1	0.0	24.6	18.2	0.0	27.8	38.0	0.0	23.4
Incr Delay (d2), s/veh	0.2	1.8	0.3	0.1	0.0	6.6	0.1	0.0	14.3	20.9	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.4	0.9	0.1	0.0	7.8	0.4	0.0	13.1	4.8	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	18.5	14.3	21.2	0.0	31.2	18.3	0.0	42.0	58.8	0.0	25.1
LnGrp LOS	B	B	B	C		C	B		D	E		C
Approach Vol, veh/h		532			409			597			614	
Approach Delay, s/veh		17.8			31.0			40.8			34.9	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	32.6		42.4	7.7	34.9	9.1	33.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	32.0		33.0	5.0	32.0	5.0	23.0				
Max Q Clear Time (g_c+I1), s	4.9	26.8		14.0	3.0	18.9	4.2	19.0				
Green Ext Time (p_c), s	0.0	0.8		1.0	0.0	0.9	0.0	0.5				

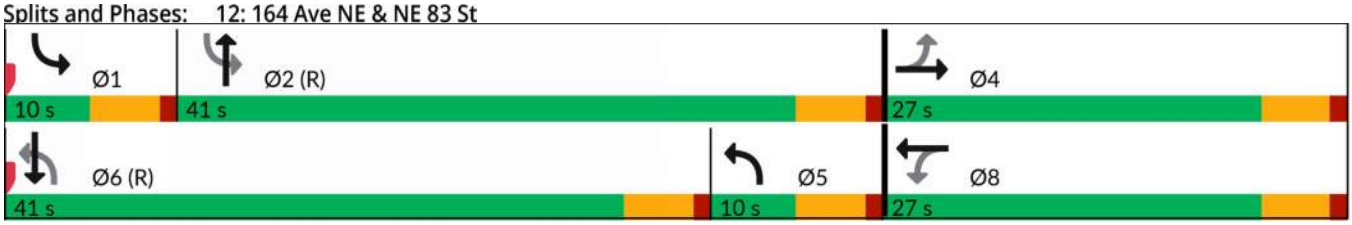
Intersection Summary		
HCM 7th Control Delay, s/veh		31.6
HCM 7th LOS		C

Lanes, Volumes, Timings
12: 164 Ave NE & NE 83 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	210	68	24	117	38	63	497	47	68	370	17
Future Volume (vph)	40	210	68	24	117	38	63	497	47	68	370	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			28	
Link Distance (ft)		968			599			662			659	
Travel Time (s)		22.0			13.6			16.1			16.0	
Confl. Peds. (#/hr)	34		47	47		34	24		31	31		24
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	3%	3%	3%	1%	1%	1%
Mid-Block Traffic (%)		40%			20%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	19.0		10.0	19.0	
Total Split (s)	27.0	27.0		27.0	27.0		10.0	41.0		10.0	41.0	
Total Split (%)	34.6%	34.6%		34.6%	34.6%		12.8%	52.6%		12.8%	52.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

Intersection Summary
Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 17 (22%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: 164 Ave NE & NE 83 St



HCM 7th Signalized Intersection Summary
12: 164 Ave NE & NE 83 St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	210	68	24	117	38	63	497	47	68	370	17
Future Volume (veh/h)	40	210	68	24	117	38	63	497	47	68	370	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.93		0.89	0.96		0.89	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1885	1885	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	41	216	70	25	121	39	65	512	48	70	381	18
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	1	1	1	3	3	3	1	1	1
Cap, veh/h	247	277	90	146	287	92	628	900	84	639	823	39
Arrive On Green	0.07	0.07	0.07	0.22	0.22	0.22	0.26	1.00	1.00	0.05	0.46	0.46
Sat Flow, veh/h	1116	1278	414	1063	1322	426	1767	1666	156	1795	1782	84
Grp Volume(v), veh/h	41	0	286	25	0	160	65	0	560	70	0	399
Grp Sat Flow(s),veh/h/ln	1116	0	1692	1063	0	1747	1767	0	1822	1795	0	1867
Q Serve(g_s), s	2.8	0.0	13.0	1.8	0.0	6.2	0.0	0.0	0.0	1.3	0.0	11.4
Cycle Q Clear(g_c), s	8.9	0.0	13.0	14.7	0.0	6.2	0.0	0.0	0.0	1.3	0.0	11.4
Prop In Lane	1.00		0.24	1.00		0.24	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	247	0	367	146	0	379	628	0	985	639	0	861
V/C Ratio(X)	0.17	0.00	0.78	0.17	0.00	0.42	0.10	0.00	0.57	0.11	0.00	0.46
Avail Cap(c_a), veh/h	319	0	477	215	0	493	628	0	985	664	0	861
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	0.91	0.99	0.00	0.99	0.85	0.00	0.85	0.74	0.00	0.74
Uniform Delay (d), s/veh	35.5	0.0	34.4	36.0	0.0	26.3	10.9	0.0	0.0	6.8	0.0	14.4
Incr Delay (d2), s/veh	0.1	0.0	4.0	0.2	0.0	0.3	0.0	0.0	2.0	0.0	0.0	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	6.2	0.5	0.0	2.5	0.5	0.0	0.6	0.4	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.6	0.0	38.3	36.2	0.0	26.6	10.9	0.0	2.0	6.8	0.0	15.7
LnGrp LOS	D		D	D		C	B		A	A		B
Approach Vol, veh/h		327			185			625			469	
Approach Delay, s/veh		38.0			27.9			3.0			14.4	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	47.2		21.9	15.1	41.0		21.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	36.0		22.0	5.0	36.0		22.0				
Max Q Clear Time (g_c+I1), s	3.3	2.0		15.0	2.0	13.4		16.7				
Green Ext Time (p_c), s	0.0	1.6		0.5	0.0	0.9		0.2				

Intersection Summary		
HCM 7th Control Delay, s/veh		16.3
HCM 7th LOS		B

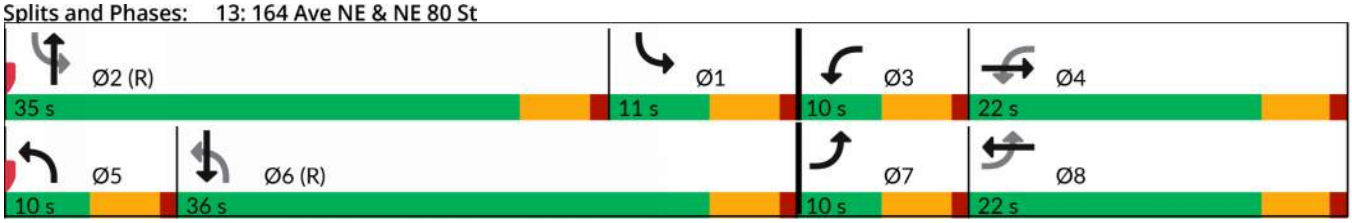
Lanes, Volumes, Timings
13: 164 Ave NE & NE 80 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	161	21	34	193	56	23	361	61	109	362	68
Future Volume (vph)	75	161	21	34	193	56	23	361	61	109	362	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	150		0	100		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			28			28	
Link Distance (ft)		178			313			347			662	
Travel Time (s)		4.9			8.5			8.4			16.1	
Confl. Peds. (#/hr)	27		24	24		27	37		22	22		37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8			4			6			2		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	17.0		10.0	18.0		10.0	18.0		10.0	19.0	
Total Split (s)	10.0	22.0		10.0	22.0		10.0	35.0		11.0	36.0	
Total Split (%)	12.8%	28.2%		12.8%	28.2%		12.8%	44.9%		14.1%	46.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes			Yes			Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

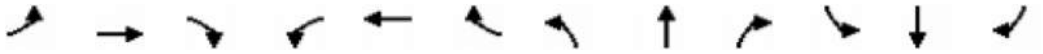
Intersection Summary

Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 18 (23%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: 164 Ave NE & NE 80 St



HCM 7th Signalized Intersection Summary
13: 164 Ave NE & NE 80 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	161	21	34	193	56	23	361	61	109	362	68
Future Volume (veh/h)	75	161	21	34	193	56	23	361	61	109	362	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.93	0.97		0.92	0.98		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	81	173	23	37	208	60	25	388	66	117	389	73
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	3	3	3
Cap, veh/h	220	312	42	283	242	70	570	589	100	506	736	138
Arrive On Green	0.11	0.39	0.39	0.04	0.18	0.18	0.04	0.51	0.51	0.26	0.98	0.98
Sat Flow, veh/h	1795	1613	214	1795	1377	397	1767	1532	261	1767	1508	283
Grp Volume(v), veh/h	81	0	196	37	0	268	25	0	454	117	0	462
Grp Sat Flow(s),veh/h/ln	1795	0	1828	1795	0	1775	1767	0	1793	1767	0	1791
Q Serve(g_s), s	2.8	0.0	6.5	1.3	0.0	11.4	0.5	0.0	14.5	0.0	0.0	1.0
Cycle Q Clear(g_c), s	2.8	0.0	6.5	1.3	0.0	11.4	0.5	0.0	14.5	0.0	0.0	1.0
Prop In Lane	1.00		0.12	1.00		0.22	1.00		0.15	1.00		0.16
Lane Grp Cap(c), veh/h	220	0	354	283	0	312	570	0	690	506	0	874
V/C Ratio(X)	0.37	0.00	0.55	0.13	0.00	0.86	0.04	0.00	0.66	0.23	0.00	0.53
Avail Cap(c_a), veh/h	240	0	398	335	0	387	636	0	690	506	0	874
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.00	0.90	0.94	0.00	0.94
Uniform Delay (d), s/veh	23.8	0.0	21.3	24.0	0.0	31.2	9.2	0.0	15.3	16.8	0.0	0.5
Incr Delay (d2), s/veh	0.8	0.0	1.0	0.2	0.0	13.8	0.0	0.0	4.4	0.1	0.0	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.5	0.5	0.0	6.0	0.2	0.0	5.6	1.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	0.0	22.3	24.1	0.0	45.0	9.3	0.0	19.7	16.9	0.0	2.7
LnGrp LOS	C		C	C		D	A		B	B		A
Approach Vol, veh/h		277			305			479			579	
Approach Delay, s/veh		22.9			42.5			19.1			5.5	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	35.0	7.8	20.1	7.1	43.0	9.1	18.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	30.0	5.0	17.0	5.0	31.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	2.0	16.5	3.3	8.5	2.5	3.0	4.8	13.4
Green Ext Time (p_c), s	0.1	1.3	0.0	0.4	0.0	1.6	0.0	0.3

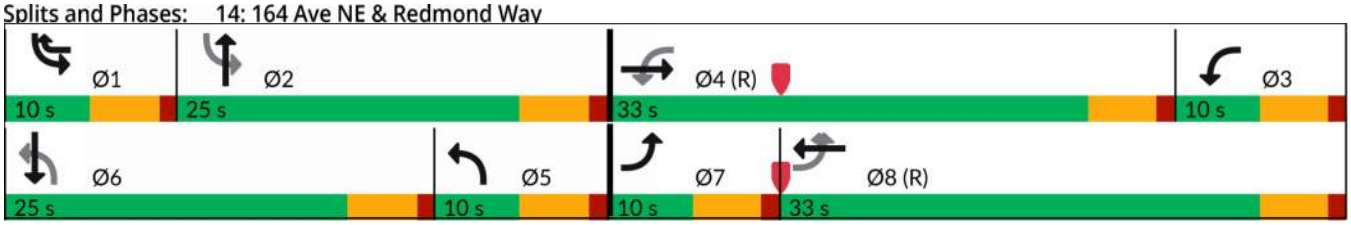
Intersection Summary	
HCM 7th Control Delay, s/veh	19.3
HCM 7th LOS	B

Lanes, Volumes, Timings
14: 164 Ave NE & Redmond Way 03/21/2025

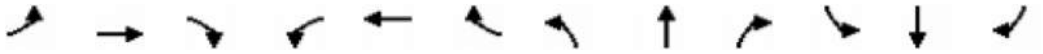
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	575	20	25	631	245	50	168	38	208	148	21
Future Volume (vph)	33	575	20	25	631	245	50	168	38	208	148	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	70		0	150		150
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		314			714			325			347	
Travel Time (s)		7.1			16.2			7.4			7.9	
Confl. Peds. (#/hr)	56		39	39		56	61		51	51		61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA	pm+ov	D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	8			4		8	6			2		
Detector Phase	7	4		3	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	10.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	22.0		10.0	24.0	10.0	10.0	25.0		10.0	24.0	
Total Split (s)	10.0	33.0		10.0	33.0	10.0	10.0	25.0		10.0	25.0	
Total Split (%)	12.8%	42.3%		12.8%	42.3%	12.8%	12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 10 (13%), Referenced to phase 4:EBWB and 8:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 14: 164 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
14: 164 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	575	20	25	631	245	50	168	38	208	148	21
Future Volume (veh/h)	33	575	20	25	631	245	50	168	38	208	148	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	0.95		0.86	0.92		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1670	1670	1670	1697	1697	1697	1643	1643	1643
Adj Flow Rate, veh/h	34	593	21	26	651	253	52	173	39	214	153	22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	3	3	1	1	1	5	5	5
Cap, veh/h	223	578	20	243	702	646	325	293	66	312	301	43
Arrive On Green	0.07	0.72	0.72	0.19	0.84	0.84	0.15	0.45	0.45	0.02	0.07	0.07
Sat Flow, veh/h	1603	1610	57	1590	1670	1321	1616	1298	293	1565	1386	199
Grp Volume(v), veh/h	34	0	614	26	651	253	52	0	212	214	0	175
Grp Sat Flow(s),veh/h/ln	1603	0	1667	1590	1670	1321	1616	0	1590	1565	0	1586
Q Serve(g_s), s	0.9	0.0	28.0	0.0	21.9	3.4	0.0	0.0	7.8	5.0	0.0	8.3
Cycle Q Clear(g_c), s	0.9	0.0	28.0	0.0	21.9	3.4	0.0	0.0	7.8	5.0	0.0	8.3
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.18	1.00		0.13
Lane Grp Cap(c), veh/h	223	0	599	243	702	646	325	0	358	312	0	344
V/C Ratio(X)	0.15	0.00	1.03	0.11	0.93	0.39	0.16	0.00	0.59	0.69	0.00	0.51
Avail Cap(c_a), veh/h	273	0	599	243	702	646	325	0	408	312	0	407
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.77	0.00	0.77	0.82	0.82	0.82	0.72	0.00	0.72	0.88	0.00	0.88
Uniform Delay (d), s/veh	14.6	0.0	11.0	28.6	5.3	3.1	25.1	0.0	18.7	27.7	0.0	32.2
Incr Delay (d2), s/veh	0.2	0.0	39.0	0.2	17.4	1.5	0.2	0.0	1.3	5.5	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	9.9	0.4	5.3	0.9	0.8	0.0	2.4	2.1	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.9	0.0	50.0	28.7	22.7	4.5	25.3	0.0	20.0	33.2	0.0	33.2
LnGrp LOS	B		F	C	C	A	C		C	C		C
Approach Vol, veh/h		648			930			264			389	
Approach Delay, s/veh		48.2			17.9			21.1			33.2	
Approach LOS		D			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.6	12.4	33.0	10.7	21.9	7.6	37.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	28.0	5.0	20.0	5.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	9.8	2.0	30.0	2.0	10.3	2.9	23.9
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.7	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	29.8
HCM 7th LOS	C

Lanes, Volumes, Timings
15: 164 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	268	50	14	98	25	41	202	20	27	152	30
Future Volume (vph)	28	268	50	14	98	25	41	202	20	27	152	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		429			743			151			325	
Travel Time (s)		11.7			20.3			3.4			7.4	
Confl. Peds. (#/hr)	18		30	30		18	43		25	25		43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Parking (#/hr)	0	0	0									
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		8.0	8.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	20.0		10.0	19.0	
Total Split (s)	43.0	43.0		43.0	43.0		10.0	25.0		10.0	25.0	
Total Split (%)	55.1%	55.1%		55.1%	55.1%		12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 77 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 15: 164 Ave NE & Cleveland St

HCM 7th Signalized Intersection Summary
15: 164 Ave NE & Cleveland St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	268	50	14	98	25	41	202	20	27	152	30
Future Volume (veh/h)	28	268	50	14	98	25	41	202	20	27	152	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.97	1.00		0.97	0.93		0.88	0.95		0.87
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1697	1697	1697	1683	1683	1683	1697	1697	1697	1683	1683	1683
Adj Flow Rate, veh/h	30	288	54	15	105	27	44	217	22	29	163	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	90	702	126	111	694	170	218	267	27	178	225	44
Arrive On Green	0.60	0.60	0.60	1.00	1.00	1.00	0.04	0.18	0.18	0.06	0.34	0.34
Sat Flow, veh/h	67	1171	210	100	1159	283	1616	1494	151	1603	1330	261
Grp Volume(v), veh/h	372	0	0	147	0	0	44	0	239	29	0	195
Grp Sat Flow(s),veh/h/ln	1448	0	0	1543	0	0	1616	0	1645	1603	0	1592
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	10.9	0.0	0.0	8.4
Cycle Q Clear(g_c), s	10.5	0.0	0.0	0.0	0.0	0.0	1.7	0.0	10.9	0.0	0.0	8.4
Prop In Lane	0.08		0.15	0.10		0.18	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	917	0	0	975	0	0	218	0	294	178	0	270
V/C Ratio(X)	0.41	0.00	0.00	0.15	0.00	0.00	0.20	0.00	0.81	0.16	0.00	0.72
Avail Cap(c_a), veh/h	917	0	0	975	0	0	258	0	422	233	0	408
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.00	0.99	0.00	0.00	1.00	0.00	1.00	0.93	0.00	0.93
Uniform Delay (d), s/veh	8.4	0.0	0.0	0.0	0.0	0.0	25.6	0.0	30.8	33.7	0.0	24.2
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.3	0.0	0.0	0.4	0.0	7.8	0.4	0.0	3.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	0.1	0.0	0.0	0.7	0.0	4.8	0.5	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.7	0.0	0.0	0.3	0.0	0.0	26.0	0.0	38.5	34.1	0.0	27.6
LnGrp LOS	A			A			C		D	C		C
Approach Vol, veh/h		372			147			283			224	
Approach Delay, s/veh		9.7			0.3			36.6			28.4	
Approach LOS		A			A			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	19.0		51.7	8.1	18.2		51.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	20.0		38.0	5.0	20.0		38.0				
Max Q Clear Time (g_c+I1), s	2.0	12.9		12.5	3.7	10.4		2.0				
Green Ext Time (p_c), s	0.0	0.5		1.6	0.0	0.5		0.6				

Intersection Summary		
HCM 7th Control Delay, s/veh	19.9	
HCM 7th LOS	B	

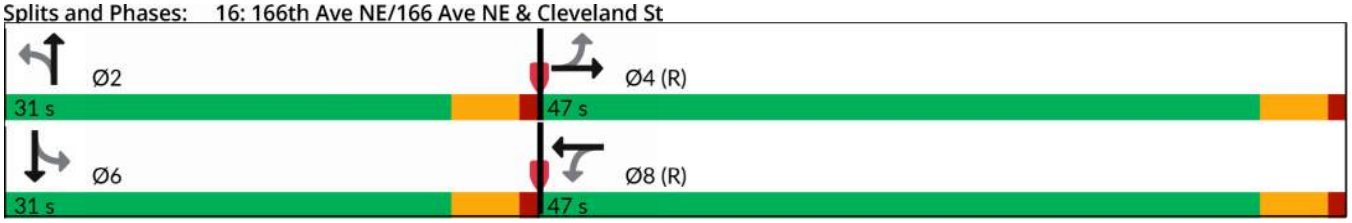
Lanes, Volumes, Timings
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	250	27	37	114	26	16	185	102	7	88	11
Future Volume (vph)	47	250	27	37	114	26	16	185	102	7	88	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	100		125	160		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		743			556			226			372	
Travel Time (s)		20.3			15.2			6.2			8.5	
Confl. Peds. (#/hr)	31		1	1		31	4		79	79		4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA	Free	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		Free	6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	47.0	47.0		47.0	47.0		31.0	31.0		31.0	31.0	
Total Split (%)	60.3%	60.3%		60.3%	60.3%		39.7%	39.7%		39.7%	39.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	

Intersection Summary

Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 8 (10%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 16: 166th Ave NE/166 Ave NE & Cleveland St



HCM 7th Signalized Intersection Summary
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	250	27	37	114	26	16	185	102	7	88	11
Future Volume (veh/h)	47	250	27	37	114	26	16	185	102	7	88	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.85		1.00	0.89		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1710	1710	1710	1697	1697	1697	1697	1697	1697	1697	1697	1697
Adj Flow Rate, veh/h	49	263	28	39	120	27	17	195	0	7	93	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	169	854	87	226	660	141	254	351		192	295	38
Arrive On Green	1.00	1.00	1.00	0.67	0.67	0.67	0.21	0.21	0.00	0.41	0.41	0.41
Sat Flow, veh/h	175	1285	131	256	993	212	997	1697	1438	960	1428	184
Grp Volume(v), veh/h	340	0	0	186	0	0	17	195	0	7	0	105
Grp Sat Flow(s),veh/h/ln	1590	0	0	1461	0	0	997	1697	1438	960	0	1612
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	8.0	0.0	0.5	0.0	3.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.3	0.0	0.0	4.6	8.0	0.0	8.5	0.0	3.4
Prop In Lane	0.14		0.08	0.21		0.15	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	1111	0	0	1028	0	0	254	351		192	0	333
V/C Ratio(X)	0.31	0.00	0.00	0.18	0.00	0.00	0.07	0.56		0.04	0.00	0.32
Avail Cap(c_a), veh/h	1111	0	0	1028	0	0	381	566		313	0	537
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.92	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	0.0	0.0	0.0	4.9	0.0	0.0	27.8	27.7	0.0	23.9	0.0	19.2
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.4	0.0	0.0	0.4	4.9	0.0	0.3	0.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.1	0.0	0.0	0.3	3.7	0.0	0.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.7	0.0	0.0	5.3	0.0	0.0	28.2	32.7	0.0	24.2	0.0	21.1
LnGrp LOS	A			A			C	C		C		C
Approach Vol, veh/h		340			186			212			112	
Approach Delay, s/veh		0.7			5.3			32.3			21.3	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.1	56.9	21.1	56.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	26.0	42.0	26.0	42.0
Max Q Clear Time (g_c+I1), s	10.0	2.0	10.5	5.3
Green Ext Time (p_c), s	1.9	4.8	0.8	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	12.3
HCM 7th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
17: 170 Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	2	15	8	5	52	5	939	2	17	514	107
Future Volume (vph)	157	2	15	8	5	52	5	939	2	17	514	107
Satd. Flow (prot)	0	1772	0	0	1658	0	1787	3573	0	1787	3432	0
Flt Permitted		0.699			0.959		0.406			0.178		
Satd. Flow (perm)	0	1288	0	0	1594	0	744	3573	0	335	3432	0
Satd. Flow (RTOR)		6			54						45	
Confl. Peds. (#/hr)	5		25	25		5	21		31	31		21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	0	0	67	0	5	980	0	18	646	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		8.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	24.0		24.0	24.0		18.0	18.0		10.0	19.0	
Total Split (s)	10.0	34.0		24.0	24.0		41.0	41.0		10.0	51.0	
Total Split (%)	11.8%	40.0%		28.2%	28.2%		48.2%	48.2%		11.8%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		None	Min	
Act Effct Green (s)		14.6			14.6		26.2	26.2		27.5	27.5	
Actuated g/C Ratio		0.28			0.28		0.50	0.50		0.52	0.52	
v/c Ratio		0.51			0.14		0.01	0.55		0.06	0.36	
Control Delay (s/veh)		22.2			8.1		10.2	12.1		7.6	7.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		22.2			8.1		10.2	12.1		7.6	7.9	
LOS		C			A		B	B		A	A	
Approach Delay (s/veh)		22.2			8.1			12.1			7.9	
Approach LOS		C			A			B			A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 52.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay (s/veh): 11.4	Intersection LOS: B
Intersection Capacity Utilization 50.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: 170 Ave NE & NE 76 St

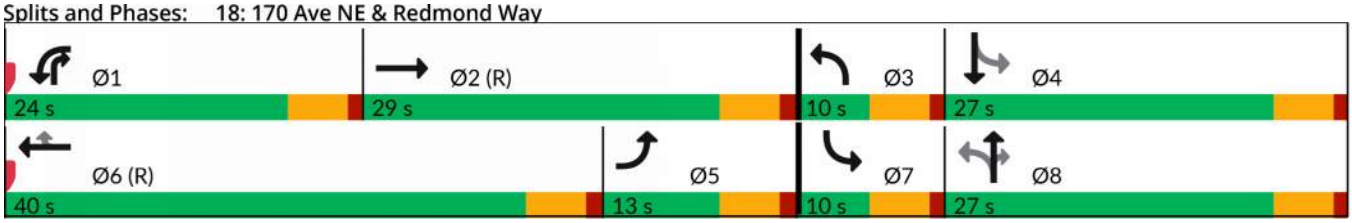
Lanes, Volumes, Timings
18: 170 Ave NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	842	84	388	724	248	29	382	740	148	171	16
Future Volume (vph)	62	842	84	388	724	248	29	382	740	148	171	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	125		0	100		0
Storage Lanes	1		0	2		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			661			498			439	
Travel Time (s)		13.3			15.0			11.3			10.0	
Confl. Peds. (#/hr)	20		6	6		20	15		27	27		15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases						6	8		8	4		
Detector Phase	5	2		1	6	6	3 8	8	1	7 4	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0	6.0	5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0	11.0	10.0	27.0	
Total Split (s)	13.0	29.0		24.0	40.0	40.0	10.0	27.0	24.0	10.0	27.0	
Total Split (%)	14.4%	32.2%		26.7%	44.4%	44.4%	11.1%	30.0%	26.7%	11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	

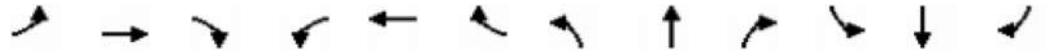
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 54 (60%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 18: 170 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
18: 170 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	842	84	388	724	248	29	382	740	148	171	16
Future Volume (veh/h)	62	842	84	388	724	248	29	382	740	148	171	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.98		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	65	886	88	408	762	261	31	402	779	156	180	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	160	1090	108	508	1393	605	332	461	611	199	457	43
Arrive On Green	0.18	0.66	0.66	0.05	0.13	0.13	0.03	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1795	3284	326	3483	3582	1557	1795	1885	1545	1795	1691	160
Grp Volume(v), veh/h	65	483	491	408	762	261	31	402	779	156	0	197
Grp Sat Flow(s),veh/h/ln	1795	1791	1819	1742	1791	1557	1795	1885	1545	1795	0	1851
Q Serve(g_s), s	2.9	17.7	17.7	10.4	17.9	10.1	1.1	18.4	22.0	5.0	0.0	9.0
Cycle Q Clear(g_c), s	2.9	17.7	17.7	10.4	17.9	10.1	1.1	18.4	22.0	5.0	0.0	9.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	160	594	604	508	1393	605	332	461	611	199	0	500
V/C Ratio(X)	0.41	0.81	0.81	0.80	0.55	0.43	0.09	0.87	1.28	0.79	0.00	0.39
Avail Cap(c_a), veh/h	160	594	604	735	1393	605	378	461	611	199	0	500
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.97	0.97	0.97	0.57	0.57	0.57	0.81	0.81	0.81	0.43	0.00	0.43
Uniform Delay (d), s/veh	34.9	13.1	13.1	41.6	31.8	15.9	24.4	32.7	27.6	29.9	0.0	34.0
Incr Delay (d2), s/veh	0.6	11.3	11.1	1.5	0.9	1.3	0.0	13.4	134.2	8.0	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	5.7	5.8	4.9	8.7	4.2	0.5	9.9	35.2	1.4	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.5	24.4	24.2	43.0	32.7	17.2	24.4	46.1	161.8	37.9	0.0	34.1
LnGrp LOS	D	C	C	D	C	B	C	D	F	D		C
Approach Vol, veh/h		1039			1431			1212			353	
Approach Delay, s/veh		25.0			32.8			119.9			35.8	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	34.9	7.7	29.3	13.0	40.0	10.0	27.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	19.0	24.0	5.0	22.0	8.0	35.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	12.4	19.7	3.1	11.0	4.9	19.9	7.0	24.0
Green Ext Time (p_c), s	0.7	1.8	0.0	0.3	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	57.2
HCM 7th LOS	E

Lanes, Volumes, Timings
19: Bear Creek Crossing & Redmond Way 03/21/2025

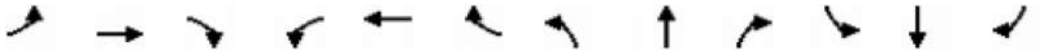
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	1540	9	18	1132	155	41	17	51	128	18	57
Future Volume (vph)	98	1540	9	18	1132	155	41	17	51	128	18	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	175		150	0		0	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		661			588			140			177	
Travel Time (s)		15.0			13.4			3.8			4.8	
Confl. Peds. (#/hr)	20		2	2		20	2		20	20		2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	D.P+P	NA		D.P+P	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	4			8		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0		10.0	27.0	
Total Split (s)	13.0	42.0		11.0	40.0	40.0	10.0	27.0		10.0	27.0	
Total Split (%)	14.4%	46.7%		12.2%	44.4%	44.4%	11.1%	30.0%		11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes				Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Bear Creek Crossing & Redmond Way

HCM 7th Signalized Intersection Summary
19: Bear Creek Crossing & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	1540	9	18	1132	155	41	17	51	128	18	57
Future Volume (veh/h)	98	1540	9	18	1132	155	41	17	51	128	18	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1870	1870	1870
Adj Flow Rate, veh/h	101	1588	9	19	1167	160	42	18	53	132	19	59
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	129	1501	9	155	1523	663	416	94	275	426	96	298
Arrive On Green	0.02	0.14	0.14	0.03	0.14	0.14	0.04	0.23	0.23	0.06	0.24	0.24
Sat Flow, veh/h	1795	3651	21	1795	3582	1560	1810	416	1224	1781	393	1221
Grp Volume(v), veh/h	101	779	818	19	1167	160	42	0	71	132	0	78
Grp Sat Flow(s),veh/h/ln	1795	1791	1881	1795	1791	1560	1810	0	1640	1781	0	1614
Q Serve(g_s), s	5.0	37.0	37.0	0.9	28.2	8.2	1.5	0.0	3.2	5.0	0.0	3.5
Cycle Q Clear(g_c), s	5.0	37.0	37.0	0.9	28.2	8.2	1.5	0.0	3.2	5.0	0.0	3.5
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.75	1.00		0.76
Lane Grp Cap(c), veh/h	129	736	773	155	1523	663	416	0	369	426	0	395
V/C Ratio(X)	0.78	1.06	1.06	0.12	0.77	0.24	0.10	0.00	0.19	0.31	0.00	0.20
Avail Cap(c_a), veh/h	160	736	773	155	1523	663	451	0	401	426	0	395
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.10	0.10	0.10	0.73	0.73	0.73	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.2	38.9	38.9	40.4	34.4	25.8	23.9	0.0	28.3	25.3	0.0	27.0
Incr Delay (d2), s/veh	1.9	29.8	30.0	0.2	2.8	0.6	0.1	0.0	0.2	0.3	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	23.7	24.9	0.4	14.0	3.4	0.7	0.0	1.3	2.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.1	68.7	68.9	40.6	37.1	26.4	24.0	0.0	28.4	25.6	0.0	28.1
LnGrp LOS	D	F	F	D	D	C	C		C	C		C
Approach Vol, veh/h		1698			1346			113			210	
Approach Delay, s/veh		67.4			35.9			26.8			26.5	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	42.0	8.3	27.0	11.5	43.3	10.0	25.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	37.0	5.0	22.0	8.0	35.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	2.9	39.0	3.5	5.5	7.0	30.2	7.0	5.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	2.8	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	50.9
HCM 7th LOS	D

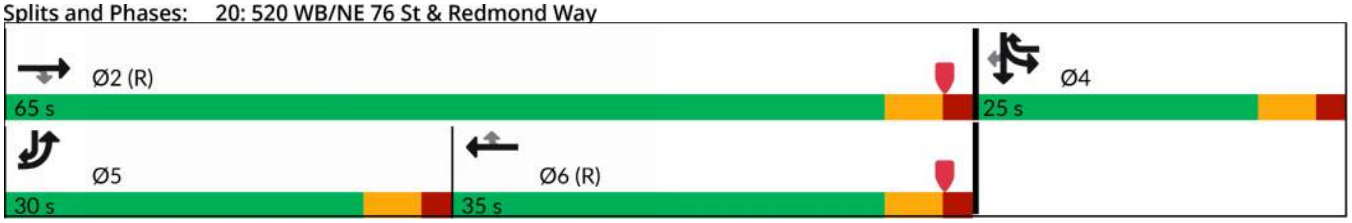
Lanes, Volumes, Timings
20: 520 WB/NE 76 St & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	426	1048	253	0	889	366	0	0	0	68	364	416
Future Volume (vph)	426	1048	253	0	889	366	0	0	0	68	364	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		110	0		0	0		0	400		350
Storage Lanes	2		1	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		588			476			347			459	
Travel Time (s)		8.9			7.2			9.5			12.5	
Confl. Peds. (#/hr)	16					16						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm		NA	pm+ov				Split	NA	pm+ov
Protected Phases	5	2			6	4				4	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	2		6	4				4	4	5
Switch Phase												
Minimum Initial (s)	5.0	7.0	7.0		7.0	5.0				5.0	5.0	5.0
Minimum Split (s)	10.9	12.9	12.9		37.9	10.9				10.9	10.9	10.9
Total Split (s)	30.0	65.0	65.0		35.0	25.0				25.0	25.0	30.0
Total Split (%)	33.3%	72.2%	72.2%		38.9%	27.8%				27.8%	27.8%	33.3%
Yellow Time (s)	3.9	3.9	3.9		3.9	3.9				3.9	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0				2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0				0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9		5.9	5.9				5.9	5.9	5.9
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min		C-Min	None				None	None	None

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 61 (68%), Referenced to phase 2:EBT and 6:WBT, Start of Red
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 20: 520 WB/NE 76 St & Redmond Way



HCM 7th Signalized Intersection Summary
20: 520 WB/NE 76 St & Redmond Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	426	1048	253	0	889	366	0	0	0	68	364	416
Future Volume (veh/h)	426	1048	253	0	889	366	0	0	0	68	364	416
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1885	1885				1870	1870	1870
Adj Flow Rate, veh/h	439	1080	261	0	916	377				70	375	429
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	1	1				2	2	2
Cap, veh/h	557	2352	1041	0	1545	1015				378	397	590
Arrive On Green	0.16	0.66	0.66	0.00	0.86	0.86				0.21	0.21	0.21
Sat Flow, veh/h	3483	3582	1586	0	3676	1568				1781	1870	1585
Grp Volume(v), veh/h	439	1080	261	0	916	377				70	375	429
Grp Sat Flow(s),veh/h/ln	1742	1791	1586	0	1791	1568				1781	1870	1585
Q Serve(g_s), s	10.9	13.3	6.1	0.0	6.5	3.6				2.9	17.8	19.1
Cycle Q Clear(g_c), s	10.9	13.3	6.1	0.0	6.5	3.6				2.9	17.8	19.1
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	557	2352	1041	0	1545	1015				378	397	590
V/C Ratio(X)	0.79	0.46	0.25	0.00	0.59	0.37				0.19	0.94	0.73
Avail Cap(c_a), veh/h	933	2352	1041	0	1545	1015				378	397	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.00	0.80	0.80				1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	7.6	6.3	0.0	4.0	1.5				29.1	34.9	24.3
Incr Delay (d2), s/veh	0.9	0.2	0.2	0.0	1.3	0.8				0.2	31.3	4.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.0	1.6	0.0	1.5	1.3				1.3	11.4	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	7.8	6.6	0.0	5.3	2.4				29.3	66.3	28.8
LnGrp LOS	D	A	A		A	A				C	E	C
Approach Vol, veh/h		1780			1293						874	
Approach Delay, s/veh		14.9			4.5						44.9	
Approach LOS		B			A						D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	65.0	25.0	20.3	44.7
Change Period (Y+Rc), s	5.9	5.9	5.9	5.9
Max Green Setting (Gmax), s	59.1	19.1	24.1	29.1
Max Q Clear Time (g_c+I1), s	15.3	21.1	12.9	8.5
Green Ext Time (p_c), s	12.7	0.0	1.5	9.1

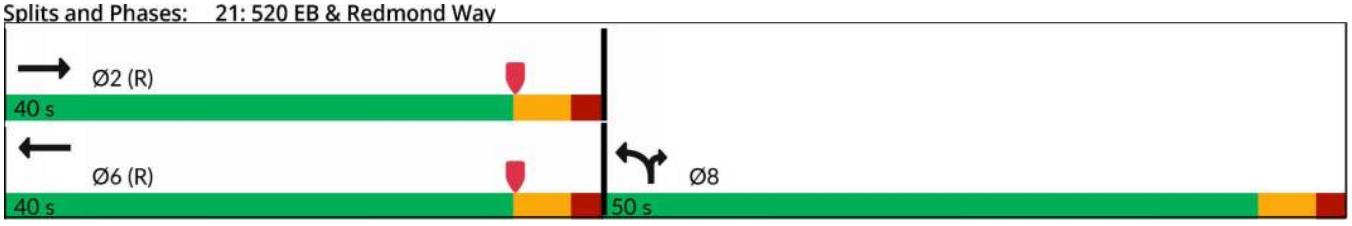
Intersection Summary	
HCM 7th Control Delay, s/veh	18.1
HCM 7th LOS	B

Notes
User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1116	0	0	867	409	1311
Future Volume (vph)	1116	0	0	867	409	1311
Satd. Flow (prot)	5136	0	0	3574	3467	2814
Flt Permitted					0.950	
Satd. Flow (perm)	5136	0	0	3574	3467	2814
Satd. Flow (RTOR)						27
Confl. Peds. (#/hr)		8	8			16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1163	0	0	903	426	1366
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	10.0			10.0	5.0	5.0
Minimum Split (s)	37.9			15.9	37.9	37.9
Total Split (s)	40.0			40.0	50.0	50.0
Total Split (%)	44.4%			44.4%	55.6%	55.6%
Yellow Time (s)	3.9			3.9	3.9	3.9
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.9			5.9	5.9	5.9
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	31.7			31.7	46.5	46.5
Actuated g/C Ratio	0.35			0.35	0.52	0.52
v/c Ratio	0.64			0.72	0.24	0.93
Control Delay (s/veh)	14.4			25.9	12.7	33.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay (s/veh)	14.4			25.9	12.7	33.4
LOS	B			C	B	C
Approach Delay (s/veh)	14.4			25.9	28.4	
Approach LOS	B			C	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 61 (68%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 23.6	Intersection LOS: C
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 21: 520 EB & Redmond Way



Lanes, Volumes, Timings
22: 164 Ave NE & NE 76 St 03/21/2025

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	2	50	158	34	1	21	90	95	2	47	142	43
Future Volume (vph)	2	50	158	34	1	21	90	95	2	47	142	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			25				25				25	
Link Distance (ft)			539				724				311	
Travel Time (s)			14.7				19.7				8.5	
Confl. Peds. (#/hr)	122	1		84	7	84		1	84	122		7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control			Yield				Yield				Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	3	72	113	26
Future Volume (vph)	3	72	113	26
Ideal Flow (vphpl)	1900	1900	1900	1900
Link Speed (mph)			25	
Link Distance (ft)			149	
Travel Time (s)			4.1	
Confl. Peds. (#/hr)	1	7		122
Peak Hour Factor	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	3%	3%	3%	3%
Shared Lane Traffic (%)				
Sign Control			Yield	

Intersection Summary

Intersection	
Intersection Delay, s/veh	6.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	290	246	278	256
Demand Flow Rate, veh/h	293	246	283	264
Vehicles Circulating, veh/h	260	298	347	194
Vehicles Exiting, veh/h	198	332	206	350
Ped Vol Crossing Leg, #/h	122	7	84	1
Ped Cap Adj	0.977	0.999	0.988	1.000
Approach Delay, s/veh	6.3	5.9	6.9	5.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	293	246	283	264
Cap Entry Lane, veh/h	1058	1018	969	1132
Entry HV Adj Factor	0.990	1.000	0.981	0.969
Flow Entry, veh/h	290	246	278	256
Cap Entry, veh/h	1024	1017	939	1097
V/C Ratio	0.283	0.242	0.296	0.233
Control Delay, s/veh	6.3	5.9	6.9	5.4
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	1

Lanes, Volumes, Timings
23: 166th Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	159	43	26	82	70	23	118	20	19	88	47
Future Volume (vph)	114	159	43	26	82	70	23	118	20	19	88	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			10			10	
Link Distance (ft)		724			1313			308			226	
Travel Time (s)		19.7			35.8			21.0			15.4	
Confl. Peds. (#/hr)	5		49	49		5	9		72	72		9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Parking (#/hr)	0	0	0				0	0	0			
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary
Area Type: Other
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	114	159	43	26	82	70	23	118	20	19	88	47
Future Vol, veh/h	114	159	43	26	82	70	23	118	20	19	88	47
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	0
Mvmt Flow	121	169	46	28	87	74	24	126	21	20	94	50
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	12.9	10.2	10.8	9.9
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	36%	15%	18%	0%
Vol Thru, %	73%	50%	46%	82%	0%
Vol Right, %	12%	14%	39%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	316	178	107	47
LT Vol	23	114	26	19	0
Through Vol	118	159	82	88	0
RT Vol	20	43	70	0	47
Lane Flow Rate	171	336	189	114	50
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.269	0.482	0.273	0.197	0.076
Departure Headway (Hd)	5.66	5.162	5.193	6.244	5.443
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	634	699	691	575	657
Service Time	3.702	3.194	3.232	3.987	3.185
HCM Lane V/C Ratio	0.27	0.481	0.274	0.198	0.076
HCM Control Delay, s/veh	10.8	12.9	10.2	10.5	8.6
HCM Lane LOS	B	B	B	B	A
HCM 95th-tile Q	1.1	2.6	1.1	0.7	0.2

Lanes, Volumes, Timings
24: 164th Ave NE & NE 74th St 03/21/2025

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	49	93	92	96	70
Future Volume (vph)	82	49	93	92	96	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10			10	10	
Link Distance (ft)	321			415	239	
Travel Time (s)	21.9			28.3	16.3	
Confl. Peds. (#/hr)	75	214	36			36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Parking (#/hr)	0	0	0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	82	49	93	92	96	70
Future Vol, veh/h	82	49	93	92	96	70
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	92	55	104	103	108	79
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8.8	9.2	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	50%	63%	0%
Vol Thru, %	50%	0%	58%
Vol Right, %	0%	37%	42%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	185	131	166
LT Vol	93	82	0
Through Vol	92	0	96
RT Vol	0	49	70
Lane Flow Rate	208	147	187
Geometry Grp	1	1	1
Degree of Util (X)	0.263	0.191	0.22
Departure Headway (Hd)	4.555	4.673	4.255
Convergence, Y/N	Yes	Yes	Yes
Cap	790	767	843
Service Time	2.579	2.704	2.28
HCM Lane V/C Ratio	0.263	0.192	0.222
HCM Control Delay, s/veh	9.2	8.8	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.7	0.8

Lanes, Volumes, Timings
25: 166th Ave NE/166th Ave NE & NE 74th St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	42	103	45	44	89
Future Volume (vph)	53	42	103	45	44	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10		10			10
Link Distance (ft)	375		216			226
Travel Time (s)	25.6		14.7			15.4
Confl. Peds. (#/hr)	53	105		34	34	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	3%	3%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop		Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	42	103	45	44	89
Future Vol, veh/h	53	42	103	45	44	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	0	0	3	3
Mvmt Flow	58	46	112	49	48	97
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	8.1	8.1	8.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	33%
Vol Thru, %	70%	0%	67%
Vol Right, %	30%	44%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	148	95	133
LT Vol	0	53	44
Through Vol	103	0	89
RT Vol	45	42	0
Lane Flow Rate	161	103	145
Geometry Grp	1	1	1
Degree of Util (X)	0.184	0.127	0.178
Departure Headway (Hd)	4.113	4.431	4.431
Convergence, Y/N	Yes	Yes	Yes
Cap	875	811	815
Service Time	2.125	2.447	2.431
HCM Lane V/C Ratio	0.184	0.127	0.178
HCM Control Delay, s/veh	8.1	8.1	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.4	0.6

Lanes, Volumes, Timings
26: Bear Creek Pkwy & 164th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	128	846	516	33	66	94
Future Volume (vph)	128	846	516	33	66	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			150	0	125
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		500	450		401	
Travel Time (s)		11.4	10.2		27.3	
Confl. Peds. (#/hr)	12			12		18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Parking (#/hr)		0				
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	128	846	516	33	66	94
Future Vol, veh/h	128	846	516	33	66	94
Conflicting Peds, #/hr	12	0	0	12	0	18
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	125
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	133	881	538	34	69	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	584	0	-	0	1697	568
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	1148	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	996	-	-	-	102	523
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	302	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	986	-	-	-	86	510
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	299	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.21	0	20.81
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	986	-	-	-	207	510
HCM Lane V/C Ratio	0.135	-	-	-	0.333	0.192
HCM Ctrl Dly (s/v)	9.2	-	-	-	30.9	13.7
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.4	0.7

Lanes, Volumes, Timings
27: Bear Creek Pkwy & 166th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	84	829	432	71	73	117
Future Volume (vph)	84	829	432	71	73	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	1%		-1%	
Storage Length (ft)	200			150	0	150
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		220	462		360	
Travel Time (s)		5.0	10.5		24.5	
Confl. Peds. (#/hr)	22			22		27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	829	432	71	73	117
Future Vol, veh/h	84	829	432	71	73	117
Conflicting Peds, #/hr	22	0	0	22	0	27
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	-1	1	-	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	88	873	455	75	77	123

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	551	0	-	0	1526	504
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	1049	-
Critical Hdwy	4.11	-	-	-	6.23	6.13
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	-	-	-	-	5.23	-
Follow-up Hdwy	2.209	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1023	-	-	-	140	574
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	356	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1005	-	-	-	123	551
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	349	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.82	0	18.13
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1005	-	-	-	250	551
HCM Lane V/C Ratio	0.088	-	-	-	0.308	0.224
HCM Ctrl Dly (s/v)	8.9	-	-	-	25.7	13.4
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.3	0.9

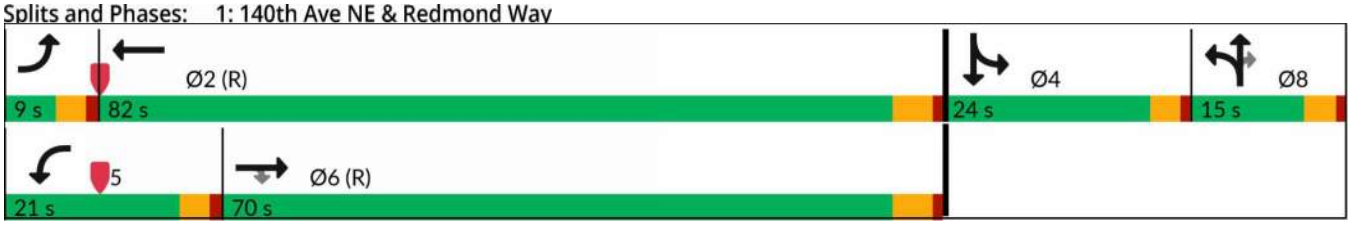
2034 No Action

Lanes, Volumes, Timings
1: 140th Ave NE & Redmond Way 03/21/2025

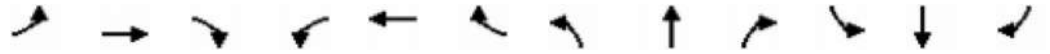
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1314	117	166	1704	7	89	11	56	18	9	24
Future Volume (vph)	34	1314	117	166	1704	7	89	11	56	18	9	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			4%			0%			7%	
Storage Length (ft)	125		250	250		0	0		200	0		30
Storage Lanes	1		1	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			35			25	
Link Distance (ft)		535			1832			797			317	
Travel Time (s)		9.1			31.2			15.5			8.6	
Confl. Peds. (#/hr)	8		2	2		8	11					11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6						8			
Detector Phase	1	6	6	5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0		9.0	9.0	9.0	24.0	24.0	
Total Split (s)	9.0	70.0	70.0	21.0	82.0		15.0	15.0	15.0	24.0	24.0	
Total Split (%)	6.9%	53.8%	53.8%	16.2%	63.1%		11.5%	11.5%	11.5%	18.5%	18.5%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0			4.0	4.0		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	

Intersection Summary
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: 140th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
1: 140th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1314	117	166	1704	7	89	11	56	18	9	24
Future Volume (veh/h)	34	1314	117	166	1704	7	89	11	56	18	9	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1791	1791	1791	1900	1900	1900	1611	1611	1611
Adj Flow Rate, veh/h	37	1428	0	180	1852	8	97	12	0	20	10	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	54	2387		204	2497	11	119	15		51	25	
Arrive On Green	0.03	0.63	0.00	0.12	0.72	0.72	0.07	0.07	0.00	0.05	0.05	0.00
Sat Flow, veh/h	1908	3806	1697	1706	3475	15	1619	200	1610	1040	520	0
Grp Volume(v), veh/h	37	1428	0	180	906	954	109	0	0	30	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1697	1706	1701	1788	1819	0	1610	1559	0	0
Q Serve(g_s), s	2.5	29.1	0.0	13.5	41.7	41.8	7.7	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	2.5	29.1	0.0	13.5	41.7	41.8	7.7	0.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.89		1.00	0.67		0.00
Lane Grp Cap(c), veh/h	54	2387		204	1223	1285	133	0		76	0	
V/C Ratio(X)	0.68	0.60		0.88	0.74	0.74	0.82	0.00		0.39	0.00	
Avail Cap(c_a), veh/h	73	2387		223	1223	1285	154	0		240	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.6	14.5	0.0	56.3	11.0	11.0	59.4	0.0	0.0	59.9	0.0	0.0
Incr Delay (d2), s/veh	14.6	1.1	0.0	29.4	4.1	3.9	25.2	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	11.9	0.0	7.4	14.6	15.4	4.4	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	77.1	15.6	0.0	85.8	15.1	14.9	84.5	0.0	0.0	62.4	0.0	0.0
LnGrp LOS	E	B		F	B	B	F			E		
Approach Vol, veh/h		1465			2040			109			30	
Approach Delay, s/veh		17.1			21.2			84.5			62.4	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	98.4		10.4	19.6	86.5		13.5				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	5.0	77.0		20.0	17.0	65.0		11.0				
Max Q Clear Time (g_c+I1), s	4.5	43.8		4.4	15.5	31.1		9.7				
Green Ext Time (p_c), s	0.0	25.2		0.0	0.1	19.1		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	21.8	
HCM 7th LOS	C	

Notes

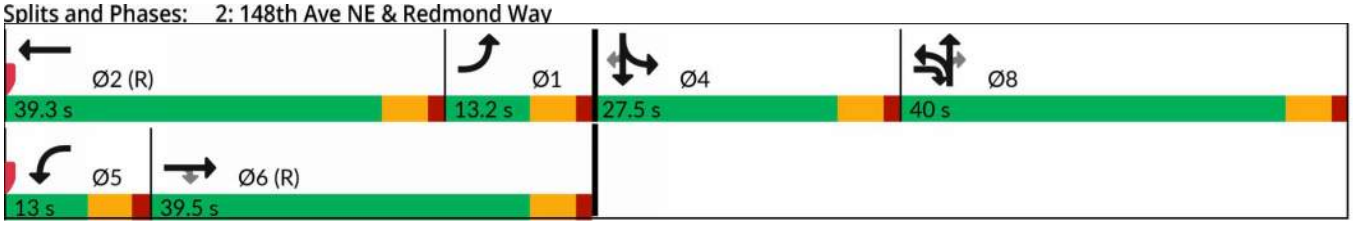
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
2: 148th Ave NE & Redmond Way 03/21/2025

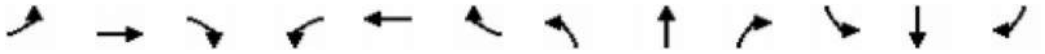
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	970	200	189	929	12	708	702	411	35	428	301
Future Volume (vph)	194	970	200	189	929	12	708	702	411	35	428	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-3%			3%	
Storage Length (ft)	375		150	250		0	275		200	200		250
Storage Lanes	2		1	2		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		957			1580			2623			1894	
Travel Time (s)		16.3			26.9			44.7			32.3	
Confl. Peds. (#/hr)	4		4	4		4			9	9		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)							35%					
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	1	6	8	5	2		8	8		4	4	
Permitted Phases			6						8			4
Detector Phase	1	6	8	5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	27.5	24.5	10.5	25.5		24.5	24.5	24.5	27.5	27.5	27.5
Total Split (s)	13.2	39.5	40.0	13.0	39.3		40.0	40.0	40.0	27.5	27.5	27.5
Total Split (%)	11.0%	32.9%	33.3%	10.8%	32.8%		33.3%	33.3%	33.3%	22.9%	22.9%	22.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 2: 148th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
2: 148th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	970	200	189	929	12	708	702	411	35	428	301
Future Volume (veh/h)	194	970	200	189	929	12	708	702	411	35	428	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	2003	2003	2003	1817	1817	1817
Adj Flow Rate, veh/h	209	1043	215	203	999	13	848	633	0	38	460	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	311	1154	1001	218	1020	13	1097	576		283	565	
Arrive On Green	0.08	0.30	0.30	0.04	0.19	0.19	0.29	0.29	0.00	0.05	0.05	0.00
Sat Flow, veh/h	3701	3806	1691	3483	3620	47	3815	2003	1697	1731	3453	1540
Grp Volume(v), veh/h	209	1043	215	203	494	518	848	633	0	38	460	0
Grp Sat Flow(s),veh/h/ln	1850	1903	1691	1742	1791	1876	1908	2003	1697	1731	1726	1540
Q Serve(g_s), s	6.6	31.6	7.2	7.0	33.0	33.0	24.4	34.5	0.0	2.5	15.8	0.0
Cycle Q Clear(g_c), s	6.6	31.6	7.2	7.0	33.0	33.0	24.4	34.5	0.0	2.5	15.8	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	1154	1001	218	504	529	1097	576		283	565	
V/C Ratio(X)	0.67	0.90	0.21	0.93	0.98	0.98	0.77	1.10		0.13	0.81	
Avail Cap(c_a), veh/h	311	1154	1001	218	504	529	1097	576		317	633	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.59	0.59	0.59	0.20	0.20	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	53.4	40.1	11.5	57.2	48.3	48.3	39.2	42.8	0.0	48.7	55.0	0.0
Incr Delay (d2), s/veh	5.6	11.6	0.5	30.2	26.2	25.5	0.7	50.7	0.0	0.2	7.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	16.2	5.0	4.0	18.7	19.5	11.2	24.6	0.0	1.1	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.9	51.7	12.0	87.4	74.6	73.9	39.9	93.5	0.0	48.9	62.1	0.0
LnGrp LOS	E	D	B	F	E	E	D	F		D	E	
Approach Vol, veh/h		1467			1215			1481			498	
Approach Delay, s/veh		46.9			76.4			62.8			61.1	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.6	39.3		25.1	13.0	41.9		40.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	7.7	33.8		22.0	7.5	34.0		34.5				
Max Q Clear Time (g_c+I1), s	8.6	35.0		17.8	9.0	33.6		36.5				
Green Ext Time (p_c), s	0.0	0.0		1.4	0.0	0.3		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	61.2
HCM 7th LOS	E

Notes

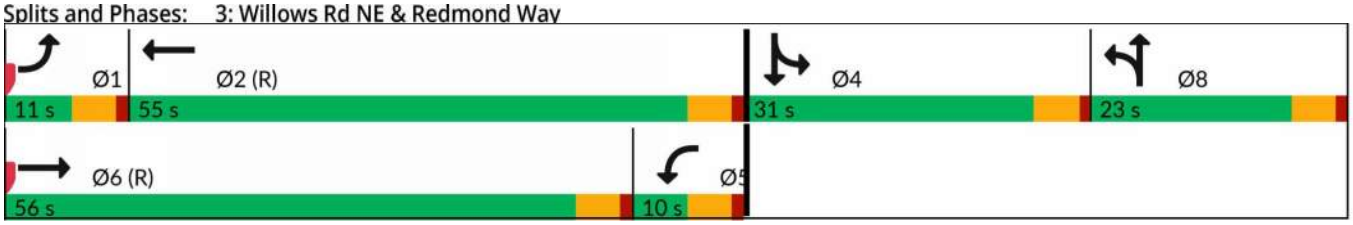
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
3: Willows Rd NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	1484	15	28	1108	288	7	6	22	642	18	17
Future Volume (vph)	17	1484	15	28	1108	288	7	6	22	642	18	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%			5%	
Storage Length (ft)	150		0	125		30	0		0	275		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		1580			850			188			922	
Travel Time (s)		26.9			14.5			5.1			18.0	
Confl. Peds. (#/hr)	12		4	4		12	19		5	5		19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)										47%		
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases												
Detector Phase	1	6		5	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	12.0		5.0	12.0		5.0	5.0		6.0	6.0	
Minimum Split (s)	11.0	19.0		10.0	19.0		23.0	23.0		25.0	25.0	
Total Split (s)	11.0	56.0		10.0	55.0		23.0	23.0		31.0	31.0	
Total Split (%)	9.2%	46.7%		8.3%	45.8%		19.2%	19.2%		25.8%	25.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34 (28%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willows Rd NE & Redmond Way



HCM 7th Signalized Intersection Summary
3: Willows Rd NE & Redmond Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1484	15	28	1108	288	7	6	22	642	18	17
Future Volume (veh/h)	17	1484	15	28	1108	288	7	6	22	642	18	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.91	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	1900	1900	1900	1738	1738	1738
Adj Flow Rate, veh/h	18	1596	16	30	1191	0	8	6	24	720	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	43	1640	16	231	1902		21	16	63	717	377	0
Arrive On Green	0.01	0.14	0.14	0.26	1.00	0.00	0.06	0.06	0.06	0.22	0.00	0.00
Sat Flow, veh/h	1908	3860	39	1795	3676	0	334	250	1001	3310	1738	0
Grp Volume(v), veh/h	18	786	826	30	1191	0	38	0	0	720	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1995	1795	1791	0	1586	0	0	1655	1738	0
Q Serve(g_s), s	1.1	49.4	49.5	1.5	0.0	0.0	2.8	0.0	0.0	26.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	49.4	49.5	1.5	0.0	0.0	2.8	0.0	0.0	26.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.00	0.21		0.63	1.00		0.00
Lane Grp Cap(c), veh/h	43	809	848	231	1902		100	0	0	717	377	0
V/C Ratio(X)	0.42	0.97	0.97	0.13	0.63		0.38	0.00	0.00	1.00	0.00	0.00
Avail Cap(c_a), veh/h	95	809	848	231	1902		238	0	0	717	377	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	0.66	0.66	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.8	50.9	50.9	39.4	0.0	0.0	54.0	0.0	0.0	47.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	13.0	12.8	0.1	1.0	0.0	0.9	0.0	0.0	34.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	28.0	29.4	0.7	0.3	0.0	1.1	0.0	0.0	14.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.4	63.9	63.8	39.5	1.0	0.0	54.8	0.0	0.0	81.5	0.0	0.0
LnGrp LOS	E	E	E	D	A		D			F		
Approach Vol, veh/h		1630			1221			38			720	
Approach Delay, s/veh		63.8			2.0			54.8			81.5	
Approach LOS		E			A			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	68.7		31.0	20.4	56.0		12.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	50.0		26.0	5.0	51.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0		28.0	3.5	51.5		4.8				
Green Ext Time (p_c), s	0.0	23.2		0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	46.3
HCM 7th LOS	D

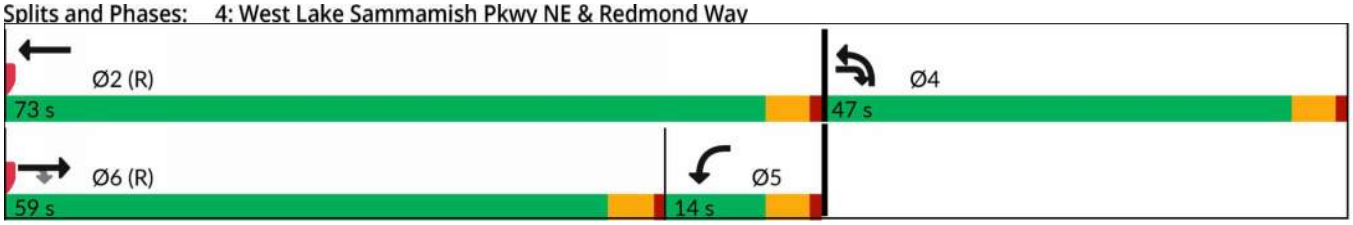
Notes
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1466	695	235	1037	393	210
Future Volume (vph)	1466	695	235	1037	393	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	-4%	
Storage Length (ft)		125	150		0	75
Storage Lanes		1	2		1	0
Taper Length (ft)			25		25	
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	35	
Link Distance (ft)	850			951	587	
Travel Time (s)	19.3			21.6	11.4	
Confl. Peds. (#/hr)		14	14			2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov	Prot	NA	Prot	
Protected Phases	6	4	5	2	4	
Permitted Phases		6				
Detector Phase	6	4	5	2	4	
Switch Phase						
Minimum Initial (s)	8.0	6.0	5.0	20.0	6.0	
Minimum Split (s)	22.0	25.0	10.0	25.0	25.0	
Total Split (s)	59.0	47.0	14.0	73.0	47.0	
Total Split (%)	49.2%	39.2%	11.7%	60.8%	39.2%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 42 (35%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 4: West Lake Sammamish Pkwy NE & Redmond Way



HCM 7th Signalized Intersection Summary
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1466	695	235	1037	393	210
Future Volume (veh/h)	1466	695	235	1037	393	210
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2003	2003	1832	1832	2027	2027
Adj Flow Rate, veh/h	1481	702	237	1047	397	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	1713	752	663	2394	441	
Arrive On Green	0.90	0.90	0.39	1.00	0.23	0.00
Sat Flow, veh/h	3906	1671	3385	3573	1926	0
Grp Volume(v), veh/h	1481	702	237	1047	398	0
Grp Sat Flow(s),veh/h/ln	1903	1671	1693	1741	1931	0
Q Serve(g_s), s	21.1	31.5	5.9	0.0	24.0	0.0
Cycle Q Clear(g_c), s	21.1	31.5	5.9	0.0	24.0	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	1713	752	663	2394	442	
V/C Ratio(X)	0.86	0.93	0.36	0.44	0.90	
Avail Cap(c_a), veh/h	1713	752	663	2394	676	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.84	0.84	0.93	0.00
Uniform Delay (d), s/veh	4.4	4.9	31.1	0.0	44.9	0.0
Incr Delay (d2), s/veh	3.0	11.4	0.3	0.5	9.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.5	2.3	0.2	12.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.4	16.3	31.4	0.5	54.8	0.0
LnGrp LOS	A	B	C	A	D	
Approach Vol, veh/h	2183			1284	398	
Approach Delay, s/veh	10.2			6.2	54.8	
Approach LOS	B			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		87.5		32.5	28.5	59.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		68.0		42.0	9.0	54.0
Max Q Clear Time (g_c+I1), s		2.0		26.0	7.9	33.5
Green Ext Time (p_c), s		6.3		1.5	0.1	12.8

Intersection Summary	
HCM 7th Control Delay, s/veh	13.5
HCM 7th LOS	B

Notes

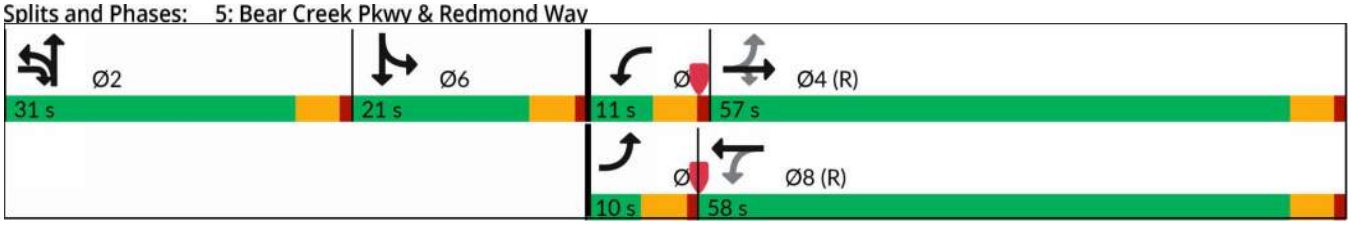
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: Bear Creek Pkwy & Redmond Way 03/21/2025

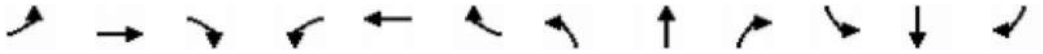
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	1082	555	78	1003	22	294	5	88	26	6	21
Future Volume (vph)	12	1082	555	78	1003	22	294	5	88	26	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-4%			0%			0%			0%	
Storage Length (ft)	150		175	150		0	125		0	0		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		951			828			488			167	
Travel Time (s)		21.6			18.8			11.1			4.6	
Confl. Peds. (#/hr)	9		15	15		9	9		19	19		9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							32%					
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases	4		4	8								
Detector Phase	7	4	2	3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	21.0		24.0	24.0		21.0	21.0	
Total Split (s)	10.0	57.0	31.0	11.0	58.0		31.0	31.0		21.0	21.0	
Total Split (%)	8.3%	47.5%	25.8%	9.2%	48.3%		25.8%	25.8%		17.5%	17.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes				
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 64 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bear Creek Pkwy & Redmond Way



HCM 7th Signalized Intersection Summary
5: Bear Creek Pkwy & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1082	555	78	1003	22	294	5	88	26	6	21
Future Volume (veh/h)	12	1082	555	78	1003	22	294	5	88	26	6	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2042	2042	2042	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	1115	572	80	1034	23	200	150	91	27	6	22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	341	2226	1255	298	2144	48	287	173	105	112	20	75
Arrive On Green	0.03	1.00	1.00	0.04	0.60	0.60	0.16	0.16	0.16	0.06	0.06	0.06
Sat Flow, veh/h	1945	3880	1708	1795	3581	80	1810	1090	661	1810	330	1209
Grp Volume(v), veh/h	12	1115	572	80	517	540	200	0	241	27	0	28
Grp Sat Flow(s),veh/h/ln	1945	1940	1708	1795	1791	1870	1810	0	1752	1810	0	1538
Q Serve(g_s), s	0.3	0.0	0.0	2.2	19.5	19.5	12.5	0.0	16.1	1.7	0.0	2.1
Cycle Q Clear(g_c), s	0.3	0.0	0.0	2.2	19.5	19.5	12.5	0.0	16.1	1.7	0.0	2.1
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.38	1.00		0.79
Lane Grp Cap(c), veh/h	341	2226	1255	298	1072	1120	287	0	278	112	0	96
V/C Ratio(X)	0.04	0.50	0.46	0.27	0.48	0.48	0.70	0.00	0.87	0.24	0.00	0.29
Avail Cap(c_a), veh/h	395	2226	1255	318	1072	1120	392	0	380	241	0	205
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.30	0.30	0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	9.4	13.6	13.6	47.7	0.0	49.2	53.6	0.0	53.8
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.2	1.2	1.1	2.5	0.0	13.4	1.1	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.9	8.0	8.3	5.9	0.0	8.1	0.8	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.3	0.2	0.4	9.6	14.7	14.7	50.3	0.0	62.6	54.7	0.0	55.4
LnGrp LOS	B	A	A	A	B	B	D		E	D		E
Approach Vol, veh/h		1699			1137			441			55	
Approach Delay, s/veh		0.4			14.4			57.0			55.1	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.0	9.7	73.9	12.5	6.6	76.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	26.0	6.0	52.0	16.0	5.0	53.0
Max Q Clear Time (g_c+I1), s	18.1	4.2	2.0	4.1	2.3	21.5
Green Ext Time (p_c), s	0.9	0.0	9.0	0.1	0.0	3.8

Intersection Summary	
HCM 7th Control Delay, s/veh	13.5
HCM 7th LOS	B

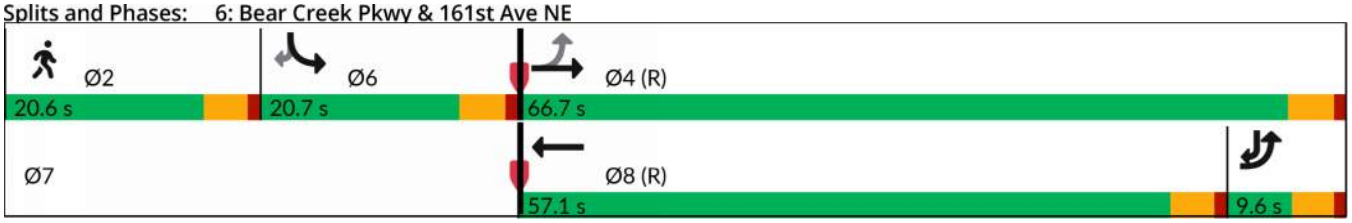
Notes
User approved volume balancing among the lanes for turning movement.

Lanes, Volumes, Timings
6: Bear Creek Pkwy & 161st Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	36	523	346	205	119	87	
Future Volume (vph)	36	523	346	205	119	87	
Satd. Flow (prot)	1787	1693	1501	0	1787	1599	
Flt Permitted	0.299				0.950		
Satd. Flow (perm)	562	1693	1501	0	1612	1445	
Satd. Flow (RTOR)			38			99	
Confl. Peds. (#/hr)	48			48	29	23	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	
Parking (#/hr)		0	0	0			
Shared Lane Traffic (%)							
Lane Group Flow (vph)	41	594	626	0	135	99	
Turn Type	pm+pt	NA	NA		Prot	pm+ov	
Protected Phases	7	4	8		6	7	2
Permitted Phases	4					6	
Detector Phase	7	4	8		6	7	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.4	9.6	20.6		20.6	9.4	20.6
Total Split (s)	9.6	66.7	57.1		20.7	9.6	20.6
Total Split (%)	8.9%	61.8%	52.9%		19.2%	8.9%	19%
Yellow Time (s)	3.4	3.6	3.6		3.6	3.4	3.6
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.4	4.6	4.6		4.6	4.4	
Lead/Lag	Lag		Lead		Lag	Lag	Lead
Lead-Lag Optimize?							
Recall Mode	None	C-Max	C-Max		None	None	None
Act Effct Green (s)	73.6	73.4	63.8		13.0	18.4	
Actuated g/C Ratio	0.68	0.68	0.59		0.12	0.17	
v/c Ratio	0.09	0.52	0.69		0.63	0.29	
Control Delay (s/veh)	10.3	13.4	18.2		57.8	6.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	10.3	13.4	18.2		57.8	6.7	
LOS	B	B	B		E	A	
Approach Delay (s/veh)		13.2	18.2		36.2		
Approach LOS		B	B		D		

Intersection Summary		
Cycle Length: 108		
Actuated Cycle Length: 108		
Offset: 11 (10%), Referenced to phase 4:EBTL and 8:WBT, Start of 1st Green		
Natural Cycle: 90		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.69		
Intersection Signal Delay (s/veh): 18.9	Intersection LOS: B	
Intersection Capacity Utilization 50.0%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 6: Bear Creek Pkwy & 161st Ave NE

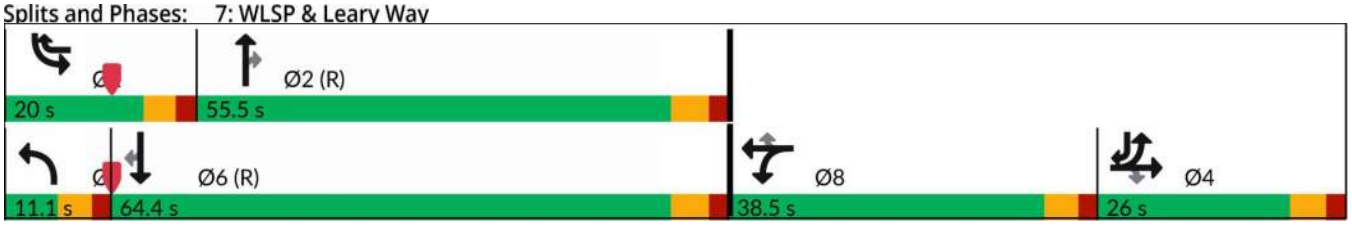


Lanes, Volumes, Timings
7: WLSP & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	12	230	300	526	94	16	1097	1245	226	949	632
Future Volume (vph)	311	12	230	300	526	94	16	1097	1245	226	949	632
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-6%			3%			0%			0%	
Storage Length (ft)	0		175	200		150	200		275	175		0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		718			834			1781			1175	
Travel Time (s)		16.3			19.0			30.4			20.0	
Confl. Peds. (#/hr)	34					34			3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)				11%								
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	4	4		8	8	1	5	2		1	6	4
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	1	5	2	2	1	6	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	7.0	5.0	10.0	10.0	7.0	10.0	5.0
Minimum Split (s)	10.9	10.9	10.9	38.5	38.5	12.5	10.5	33.9	33.9	12.5	15.9	10.9
Total Split (s)	26.0	26.0	26.0	38.5	38.5	20.0	11.1	55.5	55.5	20.0	64.4	26.0
Total Split (%)	18.6%	18.6%	18.6%	27.5%	27.5%	14.3%	7.9%	39.6%	39.6%	14.3%	46.0%	18.6%
Yellow Time (s)	3.9	3.9	3.9	3.5	3.5	3.5	3.5	3.9	3.9	3.5	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.9	5.9	5.5	5.5	5.5	5.5	5.9	5.9	5.5	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	None

Intersection Summary
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 90 (64%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 7: WLSP & Leary Way



HCM 7th Signalized Intersection Summary
7: WLSP & Leary Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	12	230	300	526	94	16	1097	1245	226	949	632
Future Volume (veh/h)	311	12	230	300	526	94	16	1097	1245	226	949	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2076	2076	2076	1817	1817	1817	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	13	242	290	590	99	17	1155	0	238	999	665
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	11	235	383	805	485	31	1310		184	1617	947
Arrive On Green	0.14	0.14	0.14	0.22	0.22	0.22	0.01	0.12	0.00	0.10	0.45	0.45
Sat Flow, veh/h	1905	76	1634	1731	3635	1469	1781	3554	1585	1781	3554	1582
Grp Volume(v), veh/h	340	0	242	290	590	99	17	1155	0	238	999	665
Grp Sat Flow(s),veh/h/ln	1981	0	1634	1731	1817	1469	1781	1777	1585	1781	1777	1582
Q Serve(g_s), s	20.1	0.0	20.1	21.9	21.1	6.8	1.3	44.8	0.0	14.5	29.8	40.8
Cycle Q Clear(g_c), s	20.1	0.0	20.1	21.9	21.1	6.8	1.3	44.8	0.0	14.5	29.8	40.8
Prop In Lane	0.96		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	0	235	383	805	485	31	1310		184	1617	947
V/C Ratio(X)	1.20	0.00	1.03	0.76	0.73	0.20	0.55	0.88		1.29	0.62	0.70
Avail Cap(c_a), veh/h	284	0	235	408	857	506	71	1310		184	1617	947
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.92	0.92	0.92	0.31	0.31	0.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	60.0	0.0	59.9	51.0	50.7	34.2	69.1	58.5	0.0	62.7	28.9	19.5
Incr Delay (d2), s/veh	117.1	0.0	67.1	7.6	3.1	0.3	4.7	3.0	0.0	162.0	1.6	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	0.0	12.7	10.3	10.0	2.5	0.6	21.9	0.0	14.8	12.8	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	177.1	0.0	127.1	58.5	53.8	34.5	73.8	61.5	0.0	224.7	30.5	23.4
LnGrp LOS	F		F	E	D	C	E	E		F	C	C
Approach Vol, veh/h		582			979			1172			1902	
Approach Delay, s/veh		156.3			53.2			61.7			52.3	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	57.5		26.0	7.9	69.6		36.5				
Change Period (Y+Rc), s	5.5	5.9		5.9	5.5	5.9		5.5				
Max Green Setting (Gmax), s	14.5	49.6		20.1	5.6	58.5		33.0				
Max Q Clear Time (g_c+I1), s	16.5	46.8		22.1	3.3	42.8		23.9				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	10.3		5.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	67.9
HCM 7th LOS	E

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
8: Leary Way & 159th Pl NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø6
Lane Configurations								
Traffic Volume (vph)	107	1399	898	19	29	86		
Future Volume (vph)	107	1399	898	19	29	86		
Satd. Flow (prot)	1787	1881	3549	0	1805	1615		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1704	1881	3549	0	1805	1615		
Satd. Flow (RTOR)			3			89		
Confl. Peds. (#/hr)	41			41		29		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%		
Mid-Block Traffic (%)		0%	0%		50%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	110	1442	946	0	30	89		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	7	4!	8		2 6!	6 7	2	6
Permitted Phases								
Detector Phase	7	4	8		2 6	7		
Switch Phase								
Minimum Initial (s)	5.0	7.0	7.0				4.0	6.0
Minimum Split (s)	10.0	12.0	20.0				21.0	11.0
Total Split (s)	20.0	105.0	74.0				21.0	11.0
Total Split (%)	15.9%	83.3%	58.7%				17%	9%
Yellow Time (s)	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	1.0	1.0	1.0				1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0					
Total Lost Time (s)	5.0	5.0	5.0					
Lead/Lag	Lead							Lag
Lead-Lag Optimize?	Yes							Yes
Recall Mode	None	C-Max	C-Max				None	None
Act Effct Green (s)	11.7	107.3	83.0		17.6	18.3		
Actuated g/C Ratio	0.09	0.85	0.66		0.14	0.15		
v/c Ratio	0.67	0.90	0.40		0.12	0.29		
Control Delay (s/veh)	74.1	19.0	13.3		30.2	10.8		
Queue Delay	0.0	5.0	0.0		0.0	0.0		
Total Delay (s/veh)	74.1	24.0	13.3		30.2	10.8		
LOS	E	C	B		C	B		
Approach Delay (s/veh)		27.6	13.3		15.7			
Approach LOS		C	B		B			

Intersection Summary	
Cycle Length: 126	
Actuated Cycle Length: 126	
Offset: 0 (0%), Referenced to phase 8:WBT and 4:EBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 21.9	Intersection LOS: C
Intersection Capacity Utilization 91.5%	ICU Level of Service F
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 8: Leary Way & 159th Pl NE

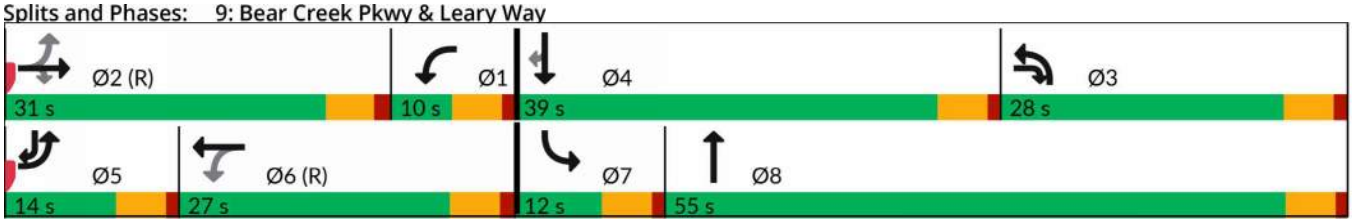
Lanes, Volumes, Timings
9: Bear Creek Pkwy & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	622	623	20	362	88	374	290	14	47	518	93
Future Volume (vph)	182	622	623	20	362	88	374	290	14	47	518	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		225	175		0	190		0	275		100
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		664			421			452			692	
Travel Time (s)		15.1			9.6			10.3			15.7	
Confl. Peds. (#/hr)	12		6	6		12	6		17	17		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8		7	4	5
Permitted Phases	2		2	6								4
Detector Phase	5	2	3	1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	5.0
Minimum Split (s)	10.0	26.2	11.2	10.0	24.2		11.2	28.0		10.0	26.0	10.0
Total Split (s)	14.0	31.0	28.0	10.0	27.0		28.0	55.0		12.0	39.0	14.0
Total Split (%)	13.0%	28.7%	25.9%	9.3%	25.0%		25.9%	50.9%		11.1%	36.1%	13.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.2	1.2	1.0	1.2		1.2	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.2	5.2	5.0	5.2		5.2	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	None

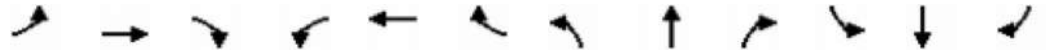
Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 85 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bear Creek Pkwy & Leary Way



HCM 7th Signalized Intersection Summary
9: Bear Creek Pkwy & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	622	623	20	362	88	374	290	14	47	518	93
Future Volume (veh/h)	182	622	623	20	362	88	374	290	14	47	518	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	186	635	636	20	369	90	382	296	14	48	529	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	217	849	586	332	831	200	474	709	34	63	564	603
Arrive On Green	0.08	0.24	0.24	0.13	0.29	0.29	0.14	0.40	0.40	0.04	0.30	0.30
Sat Flow, veh/h	1781	3554	1545	1795	2850	686	3456	1770	84	1795	1885	1570
Grp Volume(v), veh/h	186	635	636	20	230	229	382	0	310	48	529	95
Grp Sat Flow(s),veh/h/ln	1781	1777	1545	1795	1791	1745	1728	0	1854	1795	1885	1570
Q Serve(g_s), s	9.0	17.9	25.8	0.0	11.3	11.6	11.6	0.0	13.0	2.9	29.5	2.4
Cycle Q Clear(g_c), s	9.0	17.9	25.8	0.0	11.3	11.6	11.6	0.0	13.0	2.9	29.5	2.4
Prop In Lane	1.00		1.00	1.00		0.39	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	217	849	586	332	523	509	474	0	743	63	564	603
V/C Ratio(X)	0.86	0.75	1.08	0.06	0.44	0.45	0.81	0.00	0.42	0.76	0.94	0.16
Avail Cap(c_a), veh/h	217	849	586	332	523	509	730	0	858	116	593	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	1.00	1.00	1.00	0.82	0.00	0.82	0.83	0.83	0.83
Uniform Delay (d), s/veh	39.4	38.1	33.6	37.2	31.1	31.2	45.2	0.0	23.3	51.6	36.9	8.6
Incr Delay (d2), s/veh	10.8	2.1	48.5	0.1	2.7	2.9	3.2	0.0	0.3	14.0	19.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	8.0	16.2	0.5	5.2	5.2	5.1	0.0	5.7	1.5	16.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.2	40.2	82.1	37.3	33.8	34.0	48.4	0.0	23.6	65.7	56.6	8.7
LnGrp LOS	D	D	F	D	C	C	D		C	E	E	A
Approach Vol, veh/h		1457			479			692			672	
Approach Delay, s/veh		59.8			34.0			37.3			50.5	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	31.0	20.0	37.3	14.0	36.7	8.8	48.5
Change Period (Y+Rc), s	5.2	* 5.2	5.2	5.0	5.0	5.2	5.0	* 5.2
Max Green Setting (Gmax), s	5.0	* 26	22.8	34.0	9.0	21.8	7.0	* 50
Max Q Clear Time (g_c+I1), s	2.0	27.8	13.6	31.5	11.0	13.6	4.9	15.0
Green Ext Time (p_c), s	0.0	0.0	1.2	0.7	0.0	1.2	0.0	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	49.4
HCM 7th LOS	D

Notes

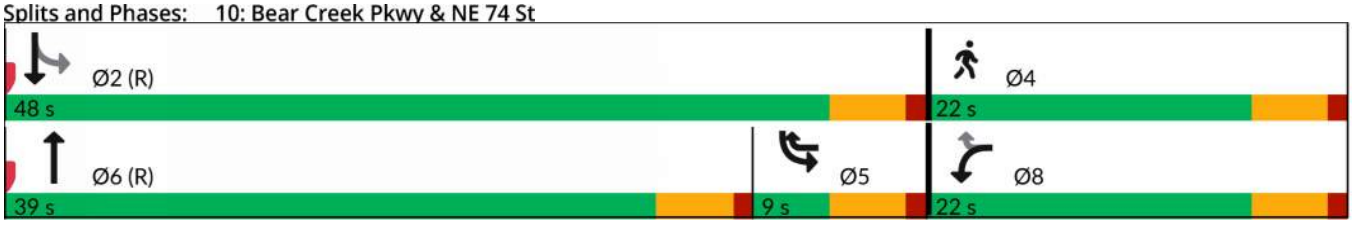
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
10: Bear Creek Pkwy & NE 74 St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	26	205	630	12	152	1029	
Future Volume (vph)	26	205	630	12	152	1029	
Satd. Flow (prot)	1805	1615	1857	0	1787	1881	
Flt Permitted	0.950				0.300		
Satd. Flow (perm)	1641	1615	1857	0	559	1881	
Satd. Flow (RTOR)		172	2				
Confl. Peds. (#/hr)	44			20	20		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	27	209	655	0	155	1050	
Turn Type	Prot	pm+ov	NA		pm+pt	NA	
Protected Phases	8	5	6		5	2	4
Permitted Phases		8			2		
Detector Phase	8	5	6		5	2	
Switch Phase							
Minimum Initial (s)	7.0	4.0	8.0		4.0	5.0	8.0
Minimum Split (s)	12.0	9.0	23.0		9.0	10.0	22.0
Total Split (s)	22.0	9.0	39.0		9.0	48.0	22.0
Total Split (%)	31.4%	12.9%	55.7%		12.9%	68.6%	31%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0	
Lead/Lag		Lag	Lead		Lag		
Lead-Lag Optimize?		Yes	Yes		Yes		
Recall Mode	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	13.0	18.5	41.5		51.8	53.8	
Actuated g/C Ratio	0.19	0.26	0.59		0.74	0.77	
v/c Ratio	0.08	0.38	0.59		0.31	0.73	
Control Delay (s/veh)	21.5	6.2	14.9		8.6	13.9	
Queue Delay	0.0	0.0	0.0		0.0	0.9	
Total Delay (s/veh)	21.5	6.2	14.9		8.6	14.8	
LOS	C	A	B		A	B	
Approach Delay (s/veh)	8.0		14.9			14.0	
Approach LOS	A		B			B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay (s/veh): 13.6	Intersection LOS: B
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Bear Creek Pkwy & NE 74 St



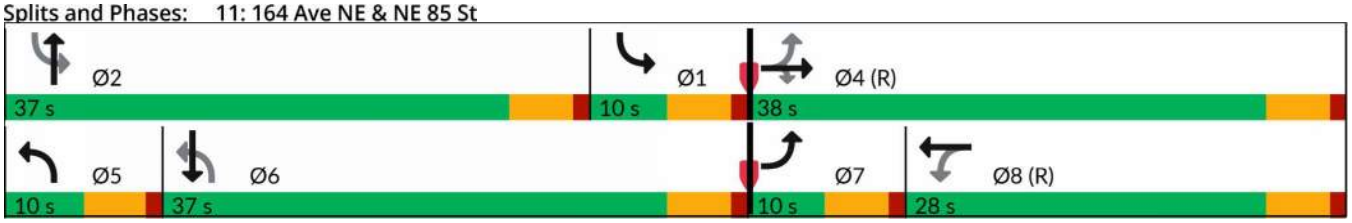
Lanes, Volumes, Timings
11: 164 Ave NE & NE 85 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	395	75	9	226	187	30	543	21	184	404	39
Future Volume (vph)	76	395	75	9	226	187	30	543	21	184	404	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		0	250		0	240		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			30	
Link Distance (ft)		469			304			659			473	
Travel Time (s)		10.7			6.9			16.0			10.8	
Confl. Peds. (#/hr)	12					12	22					22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8			6			2		
Detector Phase	7	4	4	8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0		10.0	22.0		10.0	27.0	
Total Split (s)	10.0	38.0	38.0	28.0	28.0		10.0	37.0		10.0	37.0	
Total Split (%)	11.8%	44.7%	44.7%	32.9%	32.9%		11.8%	43.5%		11.8%	43.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max		None	None		None	None	

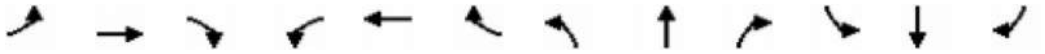
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 11: 164 Ave NE & NE 85 St



HCM 7th Signalized Intersection Summary
11: 164 Ave NE & NE 85 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	395	75	9	226	187	30	543	21	184	404	39
Future Volume (veh/h)	76	395	75	9	226	187	30	543	21	184	404	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	80	416	79	9	238	197	32	572	22	194	425	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	261	809	676	325	302	250	284	611	23	216	619	60
Arrive On Green	0.05	0.43	0.43	0.32	0.32	0.32	0.03	0.34	0.34	0.06	0.37	0.37
Sat Flow, veh/h	1810	1900	1587	910	952	788	1795	1801	69	1795	1687	163
Grp Volume(v), veh/h	80	416	79	9	0	435	32	0	594	194	0	466
Grp Sat Flow(s),veh/h/ln	1810	1900	1587	910	0	1740	1795	0	1870	1795	0	1850
Q Serve(g_s), s	2.4	13.7	2.6	0.6	0.0	19.4	0.9	0.0	26.1	3.8	0.0	18.1
Cycle Q Clear(g_c), s	2.4	13.7	2.6	5.1	0.0	19.4	0.9	0.0	26.1	3.8	0.0	18.1
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	261	809	676	325	0	551	284	0	634	216	0	679
V/C Ratio(X)	0.31	0.51	0.12	0.03	0.00	0.79	0.11	0.00	0.94	0.90	0.00	0.69
Avail Cap(c_a), veh/h	277	809	676	325	0	551	333	0	704	216	0	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.80	0.00	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	18.0	14.8	23.2	0.0	26.4	17.7	0.0	27.2	38.2	0.0	22.8
Incr Delay (d2), s/veh	0.2	2.3	0.4	0.2	0.0	11.0	0.1	0.0	15.5	33.7	0.0	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	1.0	0.1	0.0	9.4	0.4	0.0	13.9	5.8	0.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.7	20.3	15.1	23.4	0.0	37.4	17.7	0.0	42.7	71.9	0.0	25.0
LnGrp LOS	B	C	B	C		D	B		D	E		C
Approach Vol, veh/h		575			444			626			660	
Approach Delay, s/veh		19.5			37.1			41.4			38.8	
Approach LOS		B			D			D			D	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	33.8		41.2	7.7	36.2	9.2	31.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	32.0		33.0	5.0	32.0	5.0	23.0				
Max Q Clear Time (g_c+I1), s	5.8	28.1		15.7	2.9	20.1	4.4	21.4				
Green Ext Time (p_c), s	0.0	0.7		1.1	0.0	0.9	0.0	0.2				

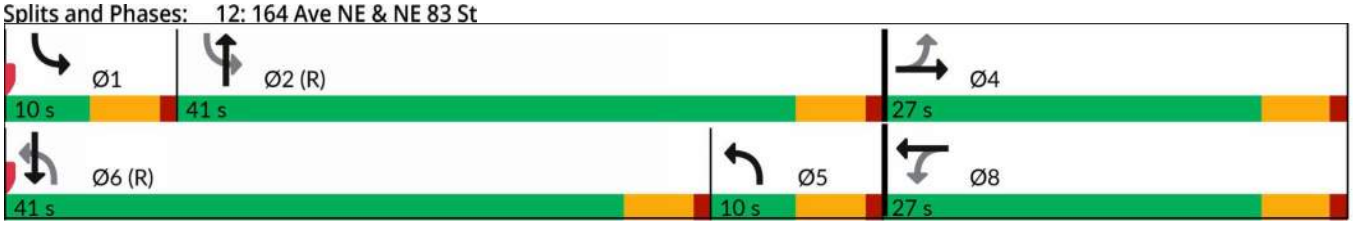
Intersection Summary	
HCM 7th Control Delay, s/veh	34.4
HCM 7th LOS	C

Lanes, Volumes, Timings
12: 164 Ave NE & NE 83 St 03/21/2025

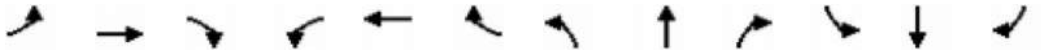
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	228	72	26	127	41	65	520	51	73	395	19
Future Volume (vph)	44	228	72	26	127	41	65	520	51	73	395	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			28	
Link Distance (ft)		968			599			662			659	
Travel Time (s)		22.0			13.6			16.1			16.0	
Confl. Peds. (#/hr)	34		47	47		34	24		31	31		24
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	3%	3%	3%	1%	1%	1%
Mid-Block Traffic (%)		40%			20%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	19.0		10.0	19.0	
Total Split (s)	27.0	27.0		27.0	27.0		10.0	41.0		10.0	41.0	
Total Split (%)	34.6%	34.6%		34.6%	34.6%		12.8%	52.6%		12.8%	52.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

Intersection Summary
Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 18 (23%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: 164 Ave NE & NE 83 St



HCM 7th Signalized Intersection Summary
12: 164 Ave NE & NE 83 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	228	72	26	127	41	65	520	51	73	395	19
Future Volume (veh/h)	44	228	72	26	127	41	65	520	51	73	395	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.94		0.90	0.98		0.90	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1885	1885	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	45	235	74	27	131	42	67	536	53	75	407	20
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	1	1	1	3	3	3	1	1	1
Cap, veh/h	256	299	94	148	307	98	582	869	86	617	821	40
Arrive On Green	0.08	0.08	0.08	0.23	0.23	0.23	0.23	1.00	1.00	0.05	0.46	0.46
Sat Flow, veh/h	1113	1292	407	1056	1327	425	1767	1656	164	1795	1778	87
Grp Volume(v), veh/h	45	0	309	27	0	173	67	0	589	75	0	427
Grp Sat Flow(s),veh/h/ln	1113	0	1698	1056	0	1752	1767	0	1820	1795	0	1866
Q Serve(g_s), s	3.0	0.0	13.9	1.9	0.0	6.6	0.0	0.0	0.0	1.4	0.0	12.5
Cycle Q Clear(g_c), s	9.6	0.0	13.9	15.9	0.0	6.6	0.0	0.0	0.0	1.4	0.0	12.5
Prop In Lane	1.00		0.24	1.00		0.24	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	256	0	393	148	0	406	582	0	955	617	0	861
V/C Ratio(X)	0.18	0.00	0.79	0.18	0.00	0.43	0.12	0.00	0.62	0.12	0.00	0.50
Avail Cap(c_a), veh/h	313	0	479	201	0	494	582	0	955	639	0	861
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	0.91	0.99	0.00	0.99	0.84	0.00	0.84	0.73	0.00	0.73
Uniform Delay (d), s/veh	35.3	0.0	34.1	35.9	0.0	25.6	12.3	0.0	0.0	7.3	0.0	14.7
Incr Delay (d2), s/veh	0.1	0.0	5.0	0.2	0.0	0.3	0.0	0.0	2.5	0.0	0.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.8	0.5	0.0	2.7	0.6	0.0	0.7	0.5	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.4	0.0	39.2	36.1	0.0	25.8	12.4	0.0	2.5	7.3	0.0	16.2
LnGrp LOS	D		D	D		C	B		A	A		B
Approach Vol, veh/h		354			200			656			502	
Approach Delay, s/veh		38.7			27.2			3.5			14.8	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	45.9		23.1	13.9	41.0		23.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	36.0		22.0	5.0	36.0		22.0				
Max Q Clear Time (g_c+I1), s	3.4	2.0		15.9	2.0	14.5		17.9				
Green Ext Time (p_c), s	0.0	1.8		0.5	0.0	1.0		0.2				

Intersection Summary		
HCM 7th Control Delay, s/veh		16.9
HCM 7th LOS		B

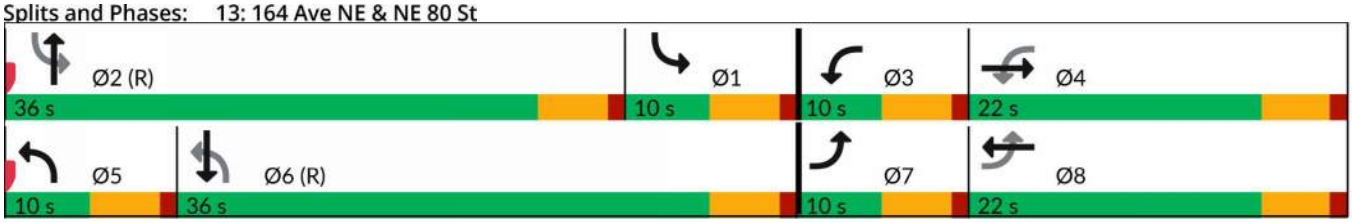
Lanes, Volumes, Timings
13: 164 Ave NE & NE 80 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	174	22	37	209	61	25	369	66	118	385	73
Future Volume (vph)	81	174	22	37	209	61	25	369	66	118	385	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	150		0	100		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			28			28	
Link Distance (ft)		178			313			347			662	
Travel Time (s)		4.9			8.5			8.4			16.1	
Confl. Peds. (#/hr)	27		24	24		27	37		22	22		37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8			4			6			2		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	17.0		10.0	18.0		10.0	18.0		10.0	19.0	
Total Split (s)	10.0	22.0		10.0	22.0		10.0	36.0		10.0	36.0	
Total Split (%)	12.8%	28.2%		12.8%	28.2%		12.8%	46.2%		12.8%	46.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes			Yes			Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

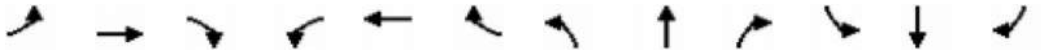
Intersection Summary

Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 18 (23%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: 164 Ave NE & NE 80 St



HCM 7th Signalized Intersection Summary
13: 164 Ave NE & NE 80 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	174	22	37	209	61	25	369	66	118	385	73
Future Volume (veh/h)	81	174	22	37	209	61	25	369	66	118	385	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.93	0.97		0.93	0.98		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	87	187	24	40	225	66	27	397	71	127	414	78
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	3	3	3
Cap, veh/h	221	333	43	293	258	76	531	604	108	467	712	134
Arrive On Green	0.11	0.41	0.41	0.04	0.19	0.19	0.04	0.53	0.53	0.21	0.95	0.95
Sat Flow, veh/h	1795	1622	208	1795	1373	403	1767	1519	272	1767	1507	284
Grp Volume(v), veh/h	87	0	211	40	0	291	27	0	468	127	0	492
Grp Sat Flow(s),veh/h/ln	1795	0	1830	1795	0	1776	1767	0	1791	1767	0	1791
Q Serve(g_s), s	3.0	0.0	6.9	1.3	0.0	12.4	0.6	0.0	14.7	0.0	0.0	2.6
Cycle Q Clear(g_c), s	3.0	0.0	6.9	1.3	0.0	12.4	0.6	0.0	14.7	0.0	0.0	2.6
Prop In Lane	1.00		0.11	1.00		0.23	1.00		0.15	1.00		0.16
Lane Grp Cap(c), veh/h	221	0	376	293	0	334	531	0	712	467	0	847
V/C Ratio(X)	0.39	0.00	0.56	0.14	0.00	0.87	0.05	0.00	0.66	0.27	0.00	0.58
Avail Cap(c_a), veh/h	239	0	399	342	0	387	594	0	712	467	0	847
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.00	0.90	0.92	0.00	0.92
Uniform Delay (d), s/veh	23.2	0.0	20.3	23.2	0.0	30.8	9.8	0.0	14.5	18.6	0.0	1.2
Incr Delay (d2), s/veh	0.8	0.0	1.3	0.2	0.0	16.6	0.0	0.0	4.3	0.2	0.0	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.6	0.6	0.0	6.7	0.2	0.0	5.6	1.6	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.0	0.0	21.6	23.4	0.0	47.3	9.8	0.0	18.8	18.8	0.0	3.9
LnGrp LOS	C		C	C		D	A		B	B		A
Approach Vol, veh/h		298			331			495			619	
Approach Delay, s/veh		22.3			44.4			18.3			6.9	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	36.0	7.9	21.0	7.2	41.9	9.2	19.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	31.0	5.0	17.0	5.0	31.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	2.0	16.7	3.3	8.9	2.6	4.6	5.0	14.4
Green Ext Time (p_c), s	0.1	1.4	0.0	0.4	0.0	1.7	0.0	0.3

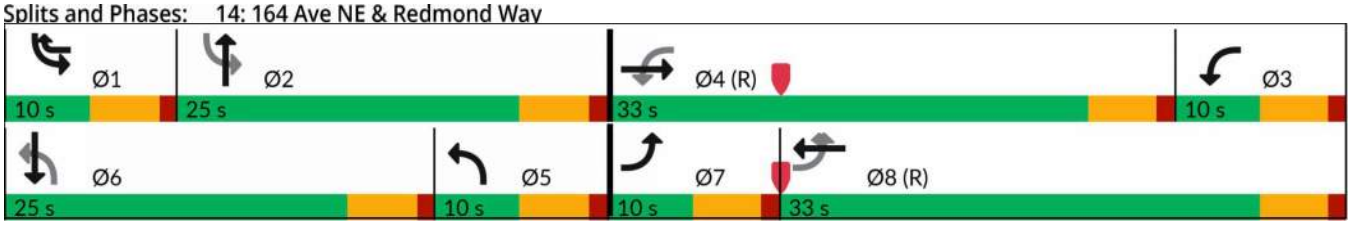
Intersection Summary	
HCM 7th Control Delay, s/veh	19.9
HCM 7th LOS	B

Lanes, Volumes, Timings
14: 164 Ave NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	623	21	27	683	265	52	160	41	225	154	22
Future Volume (vph)	36	623	21	27	683	265	52	160	41	225	154	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	70		0	150		150
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		314			714			325			347	
Travel Time (s)		7.1			16.2			7.4			7.9	
Confl. Peds. (#/hr)	56		39	39		56	61		51	51		61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA	pm+ov	D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	8			4		8	6			2		
Detector Phase	7	4		3	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	10.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	22.0		10.0	24.0	10.0	10.0	25.0		10.0	24.0	
Total Split (s)	10.0	33.0		10.0	33.0	10.0	10.0	25.0		10.0	25.0	
Total Split (%)	12.8%	42.3%		12.8%	42.3%	12.8%	12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 11 (14%), Referenced to phase 4:EBWB and 8:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 14: 164 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
14: 164 Ave NE & Redmond Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	623	21	27	683	265	52	160	41	225	154	22
Future Volume (veh/h)	36	623	21	27	683	265	52	160	41	225	154	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	0.95		0.86	0.92		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1670	1670	1670	1697	1697	1697	1643	1643	1643
Adj Flow Rate, veh/h	37	642	22	28	704	273	54	165	42	232	159	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	3	3	1	1	1	5	5	5
Cap, veh/h	149	579	20	244	700	644	318	283	72	313	302	44
Arrive On Green	0.07	0.72	0.72	0.13	0.56	0.56	0.14	0.45	0.45	0.02	0.07	0.07
Sat Flow, veh/h	1603	1613	55	1590	1670	1321	1616	1259	321	1565	1385	200
Grp Volume(v), veh/h	37	0	664	28	704	273	54	0	207	232	0	182
Grp Sat Flow(s),veh/h/ln	1603	0	1668	1590	1670	1321	1616	0	1580	1565	0	1586
Q Serve(g_s), s	1.0	0.0	28.0	0.0	32.7	8.8	0.0	0.0	7.6	5.0	0.0	8.6
Cycle Q Clear(g_c), s	1.0	0.0	28.0	0.0	32.7	8.8	0.0	0.0	7.6	5.0	0.0	8.6
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		0.13
Lane Grp Cap(c), veh/h	149	0	599	244	700	644	318	0	355	313	0	346
V/C Ratio(X)	0.25	0.00	1.11	0.11	1.01	0.42	0.17	0.00	0.58	0.74	0.00	0.53
Avail Cap(c_a), veh/h	195	0	599	244	700	644	318	0	405	313	0	407
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.77	0.00	0.77	0.82	0.82	0.82	0.74	0.00	0.74	0.86	0.00	0.86
Uniform Delay (d), s/veh	18.0	0.0	11.0	30.8	17.3	9.7	25.6	0.0	18.7	28.6	0.0	32.3
Incr Delay (d2), s/veh	0.7	0.0	66.5	0.2	32.1	1.7	0.2	0.0	1.2	7.8	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	14.5	0.5	15.3	2.4	0.8	0.0	2.4	2.7	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.7	0.0	77.5	31.0	49.4	11.3	25.7	0.0	19.9	36.4	0.0	33.4
LnGrp LOS	B		F	C	F	B	C		B	D		C
Approach Vol, veh/h		701			1005			261			414	
Approach Delay, s/veh		74.4			38.5			21.1			35.1	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.5	12.5	33.0	10.5	22.0	7.8	37.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	28.0	5.0	20.0	5.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	9.6	2.0	30.0	2.0	10.6	3.0	34.7
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.7	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	46.6
HCM 7th LOS	D

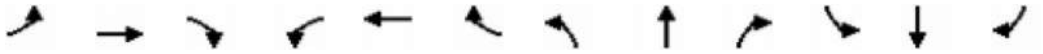
Lanes, Volumes, Timings
15: 164 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	290	54	15	106	27	44	195	22	29	158	33
Future Volume (vph)	30	290	54	15	106	27	44	195	22	29	158	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		429			743			151			325	
Travel Time (s)		11.7			20.3			3.4			7.4	
Confl. Peds. (#/hr)	18		30	30		18	43		25	25		43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Parking (#/hr)	0	0	0									
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		8.0	8.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	20.0		10.0	19.0	
Total Split (s)	42.0	42.0		42.0	42.0		10.0	26.0		10.0	26.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		12.8%	33.3%		12.8%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 77 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 15: 164 Ave NE & Cleveland St

HCM 7th Signalized Intersection Summary
15: 164 Ave NE & Cleveland St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	290	54	15	106	27	44	195	22	29	158	33
Future Volume (veh/h)	30	290	54	15	106	27	44	195	22	29	158	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.97	1.00		0.97	0.94		0.88	0.95		0.87
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1697	1697	1697	1683	1683	1683	1697	1697	1697	1683	1683	1683
Adj Flow Rate, veh/h	32	312	58	16	114	29	47	210	24	31	170	35
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	89	703	125	109	696	168	211	261	30	182	221	46
Arrive On Green	0.60	0.60	0.60	1.00	1.00	1.00	0.04	0.18	0.18	0.06	0.34	0.34
Sat Flow, veh/h	65	1174	209	98	1162	281	1616	1471	168	1603	1317	271
Grp Volume(v), veh/h	402	0	0	159	0	0	47	0	234	31	0	205
Grp Sat Flow(s),veh/h/ln	1448	0	0	1541	0	0	1616	0	1639	1603	0	1588
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	10.7	0.0	0.0	9.0
Cycle Q Clear(g_c), s	11.6	0.0	0.0	0.0	0.0	0.0	1.8	0.0	10.7	0.0	0.0	9.0
Prop In Lane	0.08		0.14	0.10		0.18	1.00		0.10	1.00		0.17
Lane Grp Cap(c), veh/h	917	0	0	973	0	0	211	0	291	182	0	267
V/C Ratio(X)	0.44	0.00	0.00	0.16	0.00	0.00	0.22	0.00	0.80	0.17	0.00	0.77
Avail Cap(c_a), veh/h	917	0	0	973	0	0	248	0	441	235	0	427
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.00	0.99	0.00	0.00	1.00	0.00	1.00	0.92	0.00	0.92
Uniform Delay (d), s/veh	8.6	0.0	0.0	0.0	0.0	0.0	25.7	0.0	30.8	33.5	0.0	24.5
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.4	0.0	0.0	0.5	0.0	6.2	0.4	0.0	4.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0	0.1	0.0	0.0	0.7	0.0	4.6	0.6	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.1	0.0	0.0	0.4	0.0	0.0	26.2	0.0	37.0	33.9	0.0	28.8
LnGrp LOS	B			A			C		D	C		C
Approach Vol, veh/h		402			159			281			236	
Approach Delay, s/veh		10.1			0.4			35.2			29.5	
Approach LOS		B			A			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	18.8		51.7	8.2	18.1		51.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	21.0		37.0	5.0	21.0		37.0				
Max Q Clear Time (g_c+I1), s	2.0	12.7		13.6	3.8	11.0		2.0				
Green Ext Time (p_c), s	0.0	0.5		1.8	0.0	0.5		0.7				

Intersection Summary												
HCM 7th Control Delay, s/veh			19.5									
HCM 7th LOS			B									

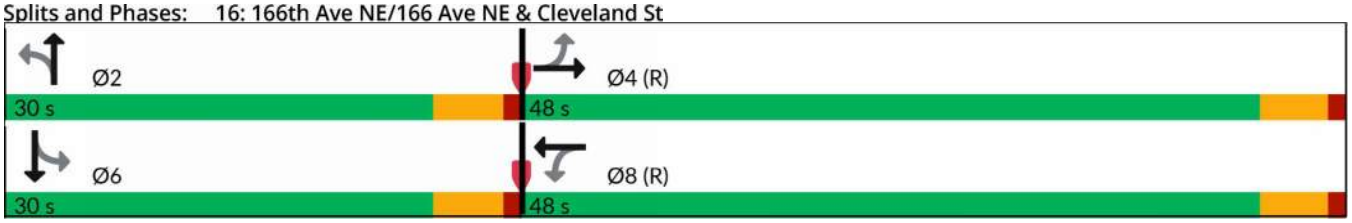
Lanes, Volumes, Timings
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	271	29	34	123	28	17	191	98	7	93	12
Future Volume (vph)	51	271	29	34	123	28	17	191	98	7	93	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	100		125	160		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		743			556			226			372	
Travel Time (s)		20.3			15.2			6.2			8.5	
Confl. Peds. (#/hr)	31		1	1		31	4		79	79		4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA	Free	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		Free	6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	48.0	48.0		48.0	48.0		30.0	30.0		30.0	30.0	
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	

Intersection Summary

Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 4 (5%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 16: 166th Ave NE/166 Ave NE & Cleveland St



HCM 7th Signalized Intersection Summary
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	271	29	34	123	28	17	191	98	7	93	12
Future Volume (veh/h)	51	271	29	34	123	28	17	191	98	7	93	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.86		1.00	0.89		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1710	1710	1710	1697	1697	1697	1697	1697	1697	1697	1697	1697
Adj Flow Rate, veh/h	54	285	31	36	129	29	18	201	0	7	98	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	171	848	88	203	687	147	252	351		189	295	39
Arrive On Green	1.00	1.00	1.00	0.66	0.66	0.66	0.21	0.21	0.00	0.41	0.41	0.41
Sat Flow, veh/h	177	1276	133	222	1033	221	994	1697	1438	957	1422	189
Grp Volume(v), veh/h	370	0	0	194	0	0	18	201	0	7	0	111
Grp Sat Flow(s),veh/h/ln	1586	0	0	1476	0	0	994	1697	1438	957	0	1610
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	8.3	0.0	0.5	0.0	3.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.5	0.0	0.0	4.9	8.3	0.0	8.8	0.0	3.7
Prop In Lane	0.15		0.08	0.19		0.15	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	1107	0	0	1036	0	0	252	351		189	0	334
V/C Ratio(X)	0.33	0.00	0.00	0.19	0.00	0.00	0.07	0.57		0.04	0.00	0.33
Avail Cap(c_a), veh/h	1107	0	0	1036	0	0	364	544		297	0	516
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.90	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	0.0	0.0	0.0	5.0	0.0	0.0	28.0	27.8	0.0	24.0	0.0	19.2
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.4	0.0	0.0	0.4	5.2	0.0	0.3	0.0	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.1	0.0	0.0	0.3	3.8	0.0	0.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.7	0.0	0.0	5.4	0.0	0.0	28.4	33.0	0.0	24.3	0.0	21.2
LnGrp LOS	A			A			C	C		C		C
Approach Vol, veh/h		370			194			219			118	
Approach Delay, s/veh		0.7			5.4			32.7			21.4	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.2	56.8	21.2	56.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	43.0	25.0	43.0
Max Q Clear Time (g_c+I1), s	10.3	2.0	10.8	5.5
Green Ext Time (p_c), s	1.9	5.4	0.8	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	12.2
HCM 7th LOS	B

Notes

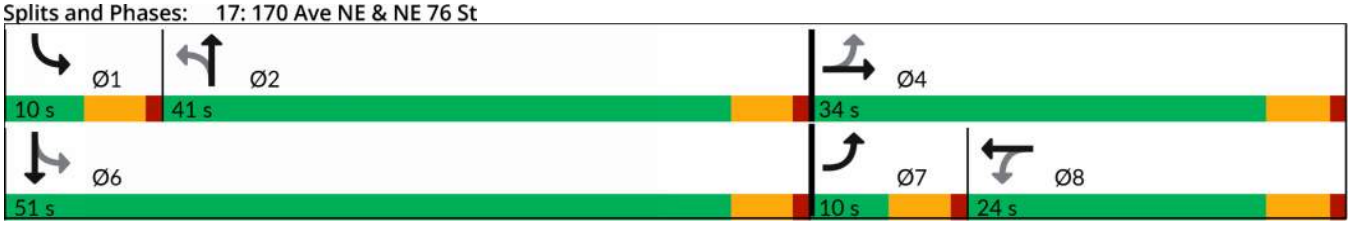
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
17: 170 Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	2	16	9	5	56	5	990	2	18	550	116
Future Volume (vph)	169	2	16	9	5	56	5	990	2	18	550	116
Satd. Flow (prot)	0	1772	0	0	1658	0	1787	3573	0	1787	3431	0
Flt Permitted		0.695			0.957		0.388			0.162		
Satd. Flow (perm)	0	1281	0	0	1591	0	712	3573	0	305	3431	0
Satd. Flow (RTOR)		6			58						46	
Confl. Peds. (#/hr)	5		25	25		5	21		31	31		21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	195	0	0	72	0	5	1033	0	19	694	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		8.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	24.0		24.0	24.0		18.0	18.0		10.0	19.0	
Total Split (s)	10.0	34.0		24.0	24.0		41.0	41.0		10.0	51.0	
Total Split (%)	11.8%	40.0%		28.2%	28.2%		48.2%	48.2%		11.8%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		None	Min	
Act Effct Green (s)		15.7			15.7		27.8	27.8		29.1	29.1	
Actuated g/C Ratio		0.28			0.28		0.50	0.50		0.52	0.52	
v/c Ratio		0.53			0.15		0.01	0.58		0.06	0.38	
Control Delay (s/veh)		23.1			8.0		10.8	12.9		8.1	8.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		23.1			8.0		10.8	12.9		8.1	8.5	
LOS		C			A		B	B		A	A	
Approach Delay (s/veh)		23.1			8.0			12.9			8.4	
Approach LOS		C			A			B			A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 55.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay (s/veh): 12.1	Intersection LOS: B
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: 170 Ave NE & NE 76 St



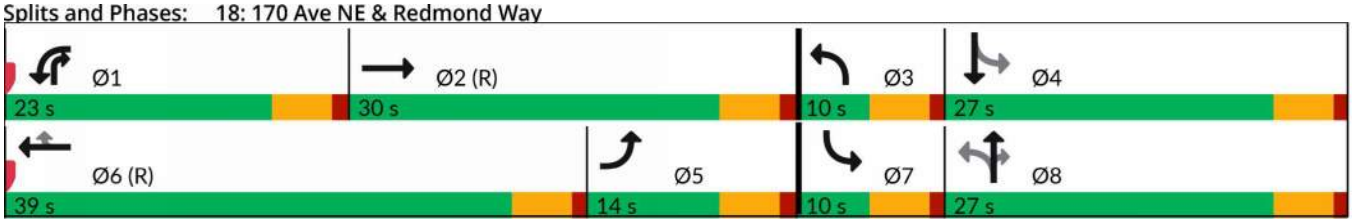
Lanes, Volumes, Timings
18: 170 Ave NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	906	91	414	781	268	32	405	783	160	184	17
Future Volume (vph)	67	906	91	414	781	268	32	405	783	160	184	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	125		0	100		0
Storage Lanes	1		0	2		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			661			498			439	
Travel Time (s)		13.3			15.0			11.3			10.0	
Confl. Peds. (#/hr)	20		6	6		20	15		27	27		15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases						6	8		8	4		
Detector Phase	5	2		1	6	6	3 8	8	1	7 4	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0	6.0	5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0	11.0	10.0	27.0	
Total Split (s)	14.0	30.0		23.0	39.0	39.0	10.0	27.0	23.0	10.0	27.0	
Total Split (%)	15.6%	33.3%		25.6%	43.3%	43.3%	11.1%	30.0%	25.6%	11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	

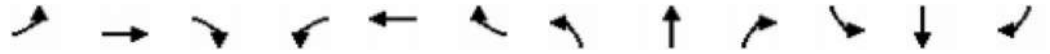
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 55 (61%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 18: 170 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
18: 170 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	906	91	414	781	268	32	405	783	160	184	17
Future Volume (veh/h)	67	906	91	414	781	268	32	405	783	160	184	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.98		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	71	954	96	436	822	282	34	426	824	168	194	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	180	1065	107	533	1353	588	322	461	622	190	454	42
Arrive On Green	0.20	0.65	0.65	0.05	0.12	0.12	0.03	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1795	3279	330	3483	3582	1555	1795	1885	1545	1795	1694	157
Grp Volume(v), veh/h	71	521	529	436	822	282	34	426	824	168	0	212
Grp Sat Flow(s),veh/h/ln	1795	1791	1818	1742	1791	1555	1795	1885	1545	1795	0	1851
Q Serve(g_s), s	3.1	21.9	22.0	11.2	19.6	11.1	1.3	19.9	22.0	5.0	0.0	9.8
Cycle Q Clear(g_c), s	3.1	21.9	22.0	11.2	19.6	11.1	1.3	19.9	22.0	5.0	0.0	9.8
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	180	582	591	533	1353	588	322	461	622	190	0	496
V/C Ratio(X)	0.40	0.90	0.90	0.82	0.61	0.48	0.11	0.92	1.32	0.88	0.00	0.43
Avail Cap(c_a), veh/h	180	582	591	697	1353	588	364	461	622	190	0	496
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.97	0.97	0.97	0.41	0.41	0.41	0.79	0.79	0.79	0.43	0.00	0.43
Uniform Delay (d), s/veh	33.6	14.5	14.5	41.5	33.1	16.7	24.4	33.2	27.3	31.2	0.0	34.5
Incr Delay (d2), s/veh	0.5	18.5	18.3	1.9	0.8	1.2	0.0	20.3	154.8	17.9	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.4	7.5	5.3	9.5	4.7	0.5	11.4	39.4	2.1	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	33.0	32.8	43.4	33.9	17.9	24.4	53.5	182.1	49.1	0.0	34.6
LnGrp LOS	C	C	C	D	C	B	C	D	F	D		C
Approach Vol, veh/h		1121			1540			1284			380	
Approach Delay, s/veh		33.0			33.7			135.3			41.0	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	34.2	7.9	29.1	14.0	39.0	10.0	27.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	25.0	5.0	22.0	9.0	34.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	13.2	24.0	3.3	11.8	5.1	21.6	7.0	24.0
Green Ext Time (p_c), s	0.6	0.6	0.0	0.3	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	64.3
HCM 7th LOS	E

Lanes, Volumes, Timings
19: Bear Creek Crossing & Redmond Way 03/21/2025

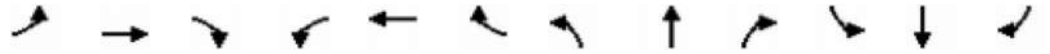
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	1643	10	19	1218	168	44	18	55	139	20	62
Future Volume (vph)	106	1643	10	19	1218	168	44	18	55	139	20	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	175		150	0		0	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		661			588			140			177	
Travel Time (s)		15.0			13.4			3.8			4.8	
Confl. Peds. (#/hr)	20		2	2		20	2		20	20		2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	D.P+P	NA		D.P+P	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	4			8		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0		10.0	27.0	
Total Split (s)	12.0	42.0		11.0	41.0	41.0	10.0	27.0		10.0	27.0	
Total Split (%)	13.3%	46.7%		12.2%	45.6%	45.6%	11.1%	30.0%		11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes				Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 17 (19%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Bear Creek Crossing & Redmond Way

HCM 7th Signalized Intersection Summary
19: Bear Creek Crossing & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	1643	10	19	1218	168	44	18	55	139	20	62
Future Volume (veh/h)	106	1643	10	19	1218	168	44	18	55	139	20	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1870	1870	1870
Adj Flow Rate, veh/h	109	1694	10	20	1256	173	45	19	57	143	21	64
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	139	1501	9	152	1499	653	413	93	278	423	98	297
Arrive On Green	0.03	0.14	0.14	0.03	0.14	0.14	0.04	0.23	0.23	0.06	0.24	0.24
Sat Flow, veh/h	1795	3650	22	1795	3582	1559	1810	410	1229	1781	399	1216
Grp Volume(v), veh/h	109	831	873	20	1256	173	45	0	76	143	0	85
Grp Sat Flow(s),veh/h/ln	1795	1791	1881	1795	1791	1559	1810	0	1639	1781	0	1615
Q Serve(g_s), s	5.4	37.0	37.0	1.0	30.8	8.9	1.6	0.0	3.4	5.0	0.0	3.8
Cycle Q Clear(g_c), s	5.4	37.0	37.0	1.0	30.8	8.9	1.6	0.0	3.4	5.0	0.0	3.8
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.75	1.00		0.75
Lane Grp Cap(c), veh/h	139	736	773	152	1499	653	413	0	371	423	0	395
V/C Ratio(X)	0.79	1.13	1.13	0.13	0.84	0.26	0.11	0.00	0.20	0.34	0.00	0.22
Avail Cap(c_a), veh/h	140	736	773	152	1499	653	445	0	401	423	0	395
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.65	0.65	0.65	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.1	38.9	38.9	40.5	35.8	26.4	23.9	0.0	28.2	25.6	0.0	27.1
Incr Delay (d2), s/veh	2.6	59.5	60.1	0.2	3.8	0.6	0.1	0.0	0.2	0.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	29.8	31.4	0.4	15.4	3.8	0.7	0.0	1.4	2.4	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	98.4	99.0	40.7	39.6	27.0	24.0	0.0	28.4	26.0	0.0	28.4
LnGrp LOS	D	F	F	D	D	C	C		C	C		C
Approach Vol, veh/h		1813			1449			121			228	
Approach Delay, s/veh		95.5			38.1			26.8			26.9	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	42.0	8.4	27.0	11.9	42.7	10.0	25.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	37.0	5.0	22.0	7.0	36.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	3.0	39.0	3.6	5.8	7.4	32.8	7.0	5.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	2.2	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	65.9
HCM 7th LOS	E

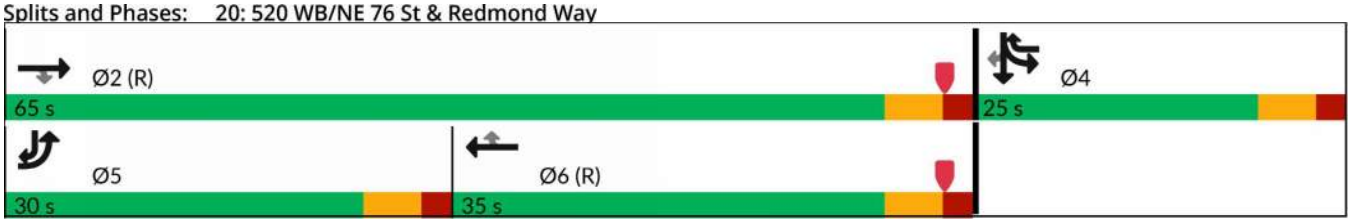
Lanes, Volumes, Timings
20: 520 WB/NE 76 St & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	453	1118	274	0	958	396	0	0	0	73	394	447
Future Volume (vph)	453	1118	274	0	958	396	0	0	0	73	394	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		110	0		0	0		0	400		350
Storage Lanes	2		1	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		588			476			347			459	
Travel Time (s)		8.9			7.2			9.5			12.5	
Confl. Peds. (#/hr)	16					16						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm		NA	pm+ov				Split	NA	pm+ov
Protected Phases	5	2			6	4				4	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	2		6	4				4	4	5
Switch Phase												
Minimum Initial (s)	5.0	7.0	7.0		7.0	5.0				5.0	5.0	5.0
Minimum Split (s)	10.9	12.9	12.9		37.9	10.9				10.9	10.9	10.9
Total Split (s)	30.0	65.0	65.0		35.0	25.0				25.0	25.0	30.0
Total Split (%)	33.3%	72.2%	72.2%		38.9%	27.8%				27.8%	27.8%	33.3%
Yellow Time (s)	3.9	3.9	3.9		3.9	3.9				3.9	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0				2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0				0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9		5.9	5.9				5.9	5.9	5.9
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min		C-Min	None				None	None	None

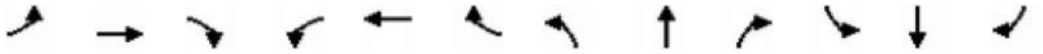
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 62 (69%), Referenced to phase 2:EBT and 6:WBT, Start of Red
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 20: 520 WB/NE 76 St & Redmond Way



HCM 7th Signalized Intersection Summary
20: 520 WB/NE 76 St & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	453	1118	274	0	958	396	0	0	0	73	394	447
Future Volume (veh/h)	453	1118	274	0	958	396	0	0	0	73	394	447
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1885	1885				1870	1870	1870
Adj Flow Rate, veh/h	467	1153	282	0	988	408				75	406	461
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	1	1				2	2	2
Cap, veh/h	591	2352	1041	0	1509	999				378	397	605
Arrive On Green	0.11	0.44	0.44	0.00	0.84	0.84				0.21	0.21	0.21
Sat Flow, veh/h	3483	3582	1586	0	3676	1567				1781	1870	1585
Grp Volume(v), veh/h	467	1153	282	0	988	408				75	406	461
Grp Sat Flow(s),veh/h/ln	1742	1791	1586	0	1791	1567				1781	1870	1585
Q Serve(g_s), s	11.7	20.7	10.2	0.0	8.7	4.9				3.1	19.1	19.1
Cycle Q Clear(g_c), s	11.7	20.7	10.2	0.0	8.7	4.9				3.1	19.1	19.1
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	591	2352	1041	0	1509	999				378	397	605
V/C Ratio(X)	0.79	0.49	0.27	0.00	0.65	0.41				0.20	1.02	0.76
Avail Cap(c_a), veh/h	933	2352	1041	0	1509	999				378	397	605
HCM Platoon Ratio	0.67	0.67	0.67	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.24	0.24	0.24	0.00	0.75	0.75				1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	14.4	11.5	0.0	4.8	1.9				29.2	35.5	24.2
Incr Delay (d2), s/veh	0.6	0.2	0.2	0.0	1.7	0.9				0.3	51.1	5.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.6	3.3	0.0	1.9	1.6				1.4	14.2	19.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.9	14.6	11.7	0.0	6.5	2.8				29.4	86.6	29.9
LnGrp LOS	D	B	B		A	A				C	F	C
Approach Vol, veh/h		1902			1396						942	
Approach Delay, s/veh		20.1			5.4						54.3	
Approach LOS		C			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		65.0		25.0	21.2	43.8						
Change Period (Y+Rc), s		5.9		5.9	5.9	5.9						
Max Green Setting (Gmax), s		59.1		19.1	24.1	29.1						
Max Q Clear Time (g_c+I1), s		22.7		21.1	13.7	10.7						
Green Ext Time (p_c), s		13.3		0.0	1.5	9.3						

Intersection Summary												
HCM 7th Control Delay, s/veh			22.9									
HCM 7th LOS			C									

Notes
User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

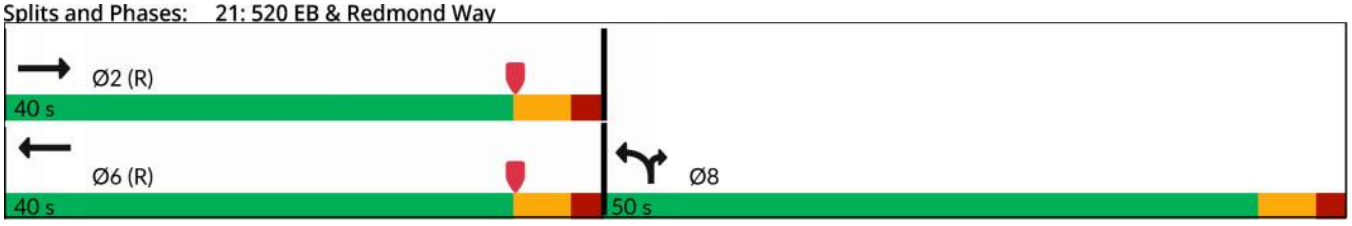
Lanes, Volumes, Timings
21: 520 EB & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1192	0	0	934	442	1419
Future Volume (vph)	1192	0	0	934	442	1419
Satd. Flow (prot)	5136	0	0	3574	3467	2814
Flt Permitted					0.950	
Satd. Flow (perm)	5136	0	0	3574	3467	2814
Satd. Flow (RTOR)						20
Confl. Peds. (#/hr)		8	8			16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1242	0	0	973	460	1478
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	10.0			10.0	5.0	5.0
Minimum Split (s)	37.9			15.9	37.9	37.9
Total Split (s)	40.0			40.0	50.0	50.0
Total Split (%)	44.4%			44.4%	55.6%	55.6%
Yellow Time (s)	3.9			3.9	3.9	3.9
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.9			5.9	5.9	5.9
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	31.3			31.3	46.9	46.9
Actuated g/C Ratio	0.35			0.35	0.52	0.52
v/c Ratio	0.70			0.78	0.25	1.00
Control Delay (s/veh)	16.0			27.8	12.9	47.2
Queue Delay	0.0			0.0	0.0	0.0
Total Delay (s/veh)	16.0			27.8	12.9	47.2
LOS	B			C	B	D
Approach Delay (s/veh)	16.0			27.8	39.1	
Approach LOS	B			C	D	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 62 (69%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay (s/veh): 29.5 Intersection LOS: C
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: 520 EB & Redmond Way



Lanes, Volumes, Timings
22: 164 Ave NE & NE 76 St 03/21/2025

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	2	54	171	37	1	23	98	102	2	51	130	46
Future Volume (vph)	2	54	171	37	1	23	98	102	2	51	130	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			25				25				25	
Link Distance (ft)			539				724				311	
Travel Time (s)			14.7				19.7				8.5	
Confl. Peds. (#/hr)	122	1		84	7	84		1	84	122		7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control			Yield				Yield				Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	4	78	116	28
Future Volume (vph)	4	78	116	28
Ideal Flow (vphpl)	1900	1900	1900	1900
Link Speed (mph)			25	
Link Distance (ft)			149	
Travel Time (s)			4.1	
Confl. Peds. (#/hr)	1	7		122
Peak Hour Factor	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	3%	3%	3%	3%
Shared Lane Traffic (%)				
Sign Control			Yield	

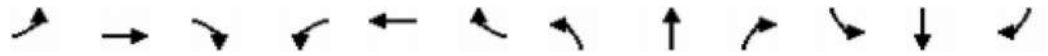
Intersection Summary

Intersection	
Intersection Delay, s/veh	6.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	314	266	273	269
Demand Flow Rate, veh/h	317	266	278	277
Vehicles Circulating, veh/h	273	294	375	211
Vehicles Exiting, veh/h	215	359	215	349
Ped Vol Crossing Leg, #/h	122	7	84	1
Ped Cap Adj	0.978	0.999	0.988	1.000
Approach Delay, s/veh	6.7	6.1	7.1	5.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	317	266	278	277
Cap Entry Lane, veh/h	1045	1022	941	1113
Entry HV Adj Factor	0.990	1.000	0.982	0.970
Flow Entry, veh/h	314	266	273	269
Cap Entry, veh/h	1011	1021	913	1079
V/C Ratio	0.310	0.260	0.299	0.249
Control Delay, s/veh	6.7	6.1	7.1	5.7
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	1

Lanes, Volumes, Timings
23: 166th Ave NE & NE 76 St 03/21/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	172	46	28	89	76	24	106	22	21	88	51
Future Volume (vph)	123	172	46	28	89	76	24	106	22	21	88	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			10			10	
Link Distance (ft)		724			1313			308			226	
Travel Time (s)		19.7			35.8			21.0			15.4	
Confl. Peds. (#/hr)	5		49	49		5	9		72	72		9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Parking (#/hr)	0	0	0				0	0	0			
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	123	172	46	28	89	76	24	106	22	21	88	51
Future Vol, veh/h	123	172	46	28	89	76	24	106	22	21	88	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	0
Mvmt Flow	131	183	49	30	95	81	26	113	23	22	94	54
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	13.8	10.5	10.9	10.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	36%	15%	19%	0%
Vol Thru, %	70%	50%	46%	81%	0%
Vol Right, %	14%	13%	39%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	341	193	109	51
LT Vol	24	123	28	21	0
Through Vol	106	172	89	88	0
RT Vol	22	46	76	0	51
Lane Flow Rate	162	363	205	116	54
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.26	0.524	0.299	0.205	0.084
Departure Headway (Hd)	5.792	5.197	5.245	6.367	5.557
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	619	693	684	562	643
Service Time	3.842	3.233	3.289	4.115	3.305
HCM Lane V/C Ratio	0.262	0.524	0.3	0.206	0.084
HCM Control Delay, s/veh	10.9	13.8	10.5	10.8	8.8
HCM Lane LOS	B	B	B	B	A
HCM 95th-tile Q	1	3.1	1.3	0.8	0.3

Lanes, Volumes, Timings
24: 164th Ave NE & NE 74th St 03/21/2025

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	89	33	33	76	98	76
Future Volume (vph)	89	33	33	76	98	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10			10	10	
Link Distance (ft)	321			415	239	
Travel Time (s)	21.9			28.3	16.3	
Confl. Peds. (#/hr)	75	214	36			36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Parking (#/hr)	0	0	0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	89	33	33	76	98	76
Future Vol, veh/h	89	33	33	76	98	76
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	100	37	37	85	110	85
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8.6	8.3	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	30%	73%	0%
Vol Thru, %	70%	0%	56%
Vol Right, %	0%	27%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	109	122	174
LT Vol	33	89	0
Through Vol	76	0	98
RT Vol	0	33	76
Lane Flow Rate	122	137	196
Geometry Grp	1	1	1
Degree of Util (X)	0.153	0.174	0.224
Departure Headway (Hd)	4.488	4.574	4.119
Convergence, Y/N	Yes	Yes	Yes
Cap	801	785	874
Service Time	2.507	2.596	2.136
HCM Lane V/C Ratio	0.152	0.175	0.224
HCM Control Delay, s/veh	8.3	8.6	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.6	0.9

Lanes, Volumes, Timings
25: 166th Ave NE/166th Ave NE & NE 74th St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	45	90	49	47	89
Future Volume (vph)	57	45	90	49	47	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10		10			10
Link Distance (ft)	375		216			226
Travel Time (s)	25.6		14.7			15.4
Confl. Peds. (#/hr)	53	105		34	34	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	3%	3%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop		Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	45	90	49	47	89
Future Vol, veh/h	57	45	90	49	47	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	0	0	3	3
Mvmt Flow	62	49	98	53	51	97
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	8.1	8	8.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	35%
Vol Thru, %	65%	0%	65%
Vol Right, %	35%	44%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	139	102	136
LT Vol	0	57	47
Through Vol	90	0	89
RT Vol	49	45	0
Lane Flow Rate	151	111	148
Geometry Grp	1	1	1
Degree of Util (X)	0.172	0.136	0.182
Departure Headway (Hd)	4.104	4.419	4.442
Convergence, Y/N	Yes	Yes	Yes
Cap	876	814	813
Service Time	2.118	2.433	2.442
HCM Lane V/C Ratio	0.172	0.136	0.182
HCM Control Delay, s/veh	8	8.1	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.5	0.7

Lanes, Volumes, Timings
26: Bear Creek Pkwy & 164th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	132	915	558	35	72	78
Future Volume (vph)	132	915	558	35	72	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			150	0	125
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		500	450		401	
Travel Time (s)		11.4	10.2		27.3	
Confl. Peds. (#/hr)	12			12		18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Parking (#/hr)		0				
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	132	915	558	35	72	78
Future Vol, veh/h	132	915	558	35	72	78
Conflicting Peds, #/hr	12	0	0	12	0	18
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	125
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	138	953	581	36	75	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	630	0	-	0	1821	611
Stage 1	-	-	-	-	593	-
Stage 2	-	-	-	-	1228	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	957	-	-	-	85	494
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	277	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	948	-	-	-	~ 71	481
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	274	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.19	0	24.78
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	948	-	-	-	187	481
HCM Lane V/C Ratio	0.145	-	-	-	0.4	0.169
HCM Ctrl Dly (s/v)	9.4	-	-	-	36.5	14
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.8	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s
+: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
27: Bear Creek Pkwy & 166th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	91	897	468	71	52	127
Future Volume (vph)	91	897	468	71	52	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	1%		-1%	
Storage Length (ft)	200			150	0	150
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		220	462		360	
Travel Time (s)		5.0	10.5		24.5	
Confl. Peds. (#/hr)	22			22		27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	897	468	71	52	127
Future Vol, veh/h	91	897	468	71	52	127
Conflicting Peds, #/hr	22	0	0	22	0	27
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	-1	1	-	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	96	944	493	75	55	134

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	589	0	-	0	1650	542
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	1136	-
Critical Hdwy	4.11	-	-	-	6.23	6.13
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	-	-	-	-	5.23	-
Follow-up Hdwy	2.209	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	991	-	-	-	118	547
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	325	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	973	-	-	-	103	525
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	319	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.84	0	17.59
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	973	-	-	-	226	525
HCM Lane V/C Ratio	0.098	-	-	-	0.242	0.255
HCM Ctrl Dly (s/v)	9.1	-	-	-	25.9	14.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.9	1

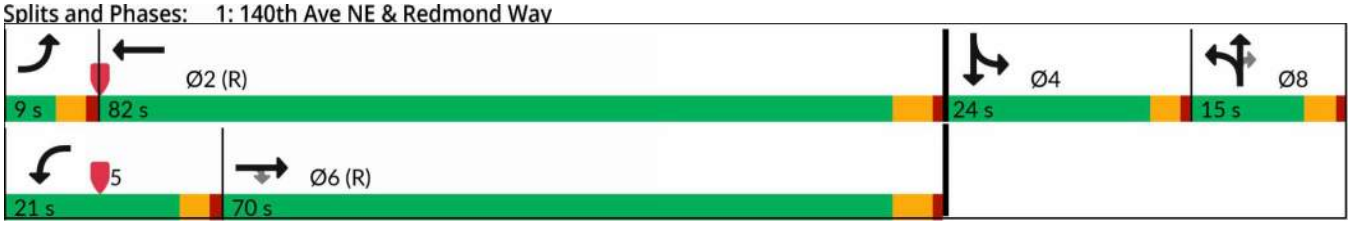
2034 With Project (Phases 1 to 3 of Scenario 2)

Lanes, Volumes, Timings
1: 140th Ave NE & Redmond Way 03/21/2025

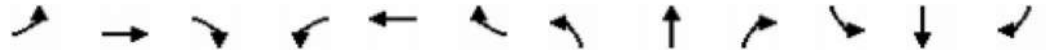
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1318	117	173	1720	7	89	11	59	18	9	24
Future Volume (vph)	34	1318	117	173	1720	7	89	11	59	18	9	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			4%			0%			7%	
Storage Length (ft)	125		250	250		0	0		200	0		30
Storage Lanes	1		1	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			35			25	
Link Distance (ft)		535			1832			797			317	
Travel Time (s)		9.1			31.2			15.5			8.6	
Confl. Peds. (#/hr)	8		2	2		8	11					11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases			6						8			
Detector Phase	1	6	6	5	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.0	23.0	23.0	9.0	23.0		9.0	9.0	9.0	24.0	24.0	
Total Split (s)	9.0	70.0	70.0	21.0	82.0		15.0	15.0	15.0	24.0	24.0	
Total Split (%)	6.9%	53.8%	53.8%	16.2%	63.1%		11.5%	11.5%	11.5%	18.5%	18.5%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0			4.0	4.0		4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	

Intersection Summary
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: 140th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
1: 140th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1318	117	173	1720	7	89	11	59	18	9	24
Future Volume (veh/h)	34	1318	117	173	1720	7	89	11	59	18	9	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1791	1791	1791	1900	1900	1900	1611	1611	1611
Adj Flow Rate, veh/h	37	1433	0	188	1870	8	97	12	0	20	10	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	54	2370		212	2497	11	119	15		51	25	
Arrive On Green	0.03	0.62	0.00	0.12	0.72	0.72	0.07	0.07	0.00	0.05	0.05	0.00
Sat Flow, veh/h	1908	3806	1697	1706	3475	15	1619	200	1610	1040	520	0
Grp Volume(v), veh/h	37	1433	0	188	915	963	109	0	0	30	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1697	1706	1701	1788	1819	0	1610	1559	0	0
Q Serve(g_s), s	2.5	29.6	0.0	14.1	42.6	42.7	7.7	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	2.5	29.6	0.0	14.1	42.6	42.7	7.7	0.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.89		1.00	0.67		0.00
Lane Grp Cap(c), veh/h	54	2370		212	1223	1285	133	0		76	0	
V/C Ratio(X)	0.68	0.60		0.89	0.75	0.75	0.82	0.00		0.39	0.00	
Avail Cap(c_a), veh/h	73	2370		223	1223	1285	154	0		240	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.6	14.8	0.0	56.0	11.1	11.2	59.4	0.0	0.0	59.9	0.0	0.0
Incr Delay (d2), s/veh	14.6	1.2	0.0	31.3	4.2	4.0	25.2	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	12.2	0.0	7.8	15.0	15.7	4.4	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	77.1	16.0	0.0	87.3	15.4	15.2	84.5	0.0	0.0	62.4	0.0	0.0
LnGrp LOS	E	B		F	B	B	F			E		
Approach Vol, veh/h		1470			2066			109			30	
Approach Delay, s/veh		17.5			21.8			84.5			62.4	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	98.4		10.4	20.1	86.0		13.5				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	5.0	77.0		20.0	17.0	65.0		11.0				
Max Q Clear Time (g_c+I1), s	4.5	44.7		4.4	16.1	31.6		9.7				
Green Ext Time (p_c), s	0.0	24.9		0.0	0.1	19.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	22.3	
HCM 7th LOS	C	

Notes

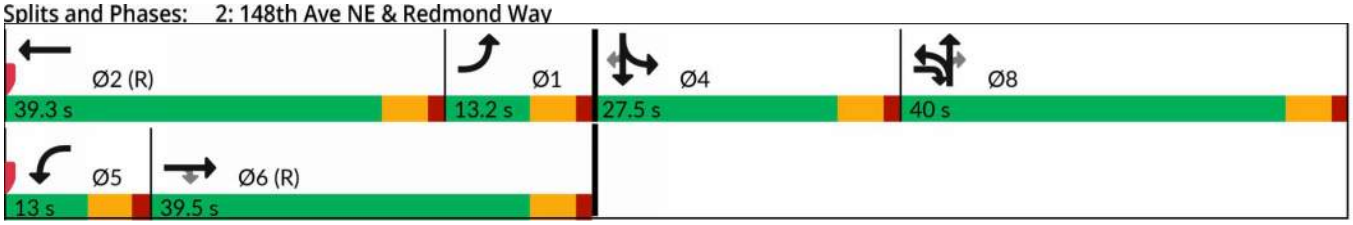
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
2: 148th Ave NE & Redmond Way 03/21/2025

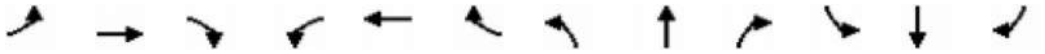
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	977	200	189	952	12	708	702	411	35	428	301
Future Volume (vph)	194	977	200	189	952	12	708	702	411	35	428	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-3%			3%	
Storage Length (ft)	375		150	250		0	275		200	200		250
Storage Lanes	2		1	2		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		957			1580			2623			1894	
Travel Time (s)		16.3			26.9			44.7			32.3	
Confl. Peds. (#/hr)	4		4	4		4			9	9		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)							35%					
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	1	6	8	5	2		8	8		4	4	
Permitted Phases			6						8			4
Detector Phase	1	6	8	5	2		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	27.5	24.5	10.5	25.5		24.5	24.5	24.5	27.5	27.5	27.5
Total Split (s)	13.2	39.5	40.0	13.0	39.3		40.0	40.0	40.0	27.5	27.5	27.5
Total Split (%)	11.0%	32.9%	33.3%	10.8%	32.8%		33.3%	33.3%	33.3%	22.9%	22.9%	22.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 2: 148th Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
2: 148th Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	977	200	189	952	12	708	702	411	35	428	301
Future Volume (veh/h)	194	977	200	189	952	12	708	702	411	35	428	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	2003	2003	2003	1817	1817	1817
Adj Flow Rate, veh/h	209	1051	215	203	1024	13	848	633	0	38	460	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	311	1154	1001	218	1020	13	1097	576		283	565	
Arrive On Green	0.08	0.30	0.30	0.04	0.19	0.19	0.29	0.29	0.00	0.05	0.05	0.00
Sat Flow, veh/h	3701	3806	1691	3483	3622	46	3815	2003	1697	1731	3453	1540
Grp Volume(v), veh/h	209	1051	215	203	506	531	848	633	0	38	460	0
Grp Sat Flow(s),veh/h/ln	1850	1903	1691	1742	1791	1877	1908	2003	1697	1731	1726	1540
Q Serve(g_s), s	6.6	31.9	7.2	7.0	33.8	33.8	24.4	34.5	0.0	2.5	15.8	0.0
Cycle Q Clear(g_c), s	6.6	31.9	7.2	7.0	33.8	33.8	24.4	34.5	0.0	2.5	15.8	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	1154	1001	218	504	529	1097	576		283	565	
V/C Ratio(X)	0.67	0.91	0.21	0.93	1.00	1.00	0.77	1.10		0.13	0.81	
Avail Cap(c_a), veh/h	311	1154	1001	218	504	529	1097	576		317	633	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	0.20	0.20	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	53.4	40.2	11.5	57.2	48.7	48.7	39.2	42.8	0.0	48.7	55.0	0.0
Incr Delay (d2), s/veh	5.6	12.2	0.5	28.8	30.6	30.0	0.7	50.7	0.0	0.2	7.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	16.4	5.0	3.9	19.7	20.6	11.2	24.6	0.0	1.1	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.9	52.5	12.0	86.1	79.3	78.6	39.9	93.5	0.0	48.9	62.1	0.0
LnGrp LOS	E	D	B	F	F	F	D	F		D	E	
Approach Vol, veh/h		1475			1240			1481			498	
Approach Delay, s/veh		47.5			80.1			62.8			61.1	
Approach LOS		D			F			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.6	39.3		25.1	13.0	41.9		40.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	7.7	33.8		22.0	7.5	34.0		34.5				
Max Q Clear Time (g_c+I1), s	8.6	35.8		17.8	9.0	33.9		36.5				
Green Ext Time (p_c), s	0.0	0.0		1.4	0.0	0.1		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	62.4
HCM 7th LOS	E

Notes

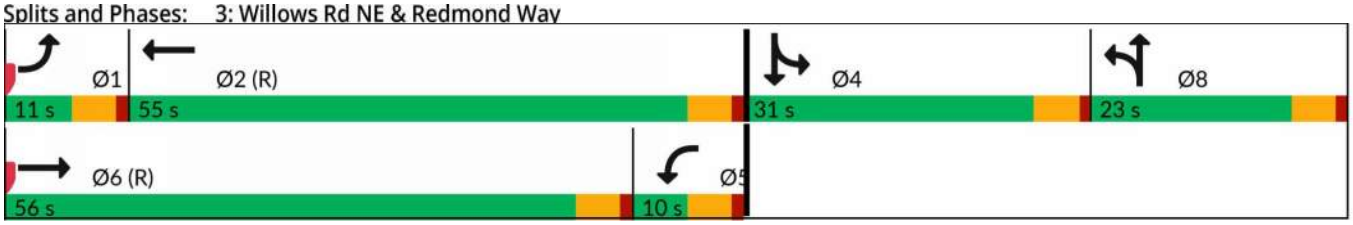
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
3: Willows Rd NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	1491	15	28	1131	303	7	6	22	646	18	17
Future Volume (vph)	17	1491	15	28	1131	303	7	6	22	646	18	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%			5%	
Storage Length (ft)	150		0	125		30	0		0	275		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		1580			850			188			922	
Travel Time (s)		26.9			14.5			5.1			18.0	
Confl. Peds. (#/hr)	12		4	4		12	19		5	5		19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)										47%		
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases												
Detector Phase	1	6		5	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	12.0		5.0	12.0		5.0	5.0		6.0	6.0	
Minimum Split (s)	11.0	19.0		10.0	19.0		23.0	23.0		25.0	25.0	
Total Split (s)	11.0	56.0		10.0	55.0		23.0	23.0		31.0	31.0	
Total Split (%)	9.2%	46.7%		8.3%	45.8%		19.2%	19.2%		25.8%	25.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34 (28%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 3: Willows Rd NE & Redmond Way



HCM 7th Signalized Intersection Summary
3: Willows Rd NE & Redmond Way 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1491	15	28	1131	303	7	6	22	646	18	17
Future Volume (veh/h)	17	1491	15	28	1131	303	7	6	22	646	18	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.91	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2003	2003	2003	1885	1885	1885	1900	1900	1900	1738	1738	1738
Adj Flow Rate, veh/h	18	1603	16	30	1216	0	8	6	24	725	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	43	1640	16	231	1902		21	16	63	717	377	0
Arrive On Green	0.01	0.14	0.14	0.26	1.00	0.00	0.06	0.06	0.06	0.22	0.00	0.00
Sat Flow, veh/h	1908	3860	38	1795	3676	0	334	250	1001	3310	1738	0
Grp Volume(v), veh/h	18	790	829	30	1216	0	38	0	0	725	0	0
Grp Sat Flow(s),veh/h/ln	1908	1903	1995	1795	1791	0	1586	0	0	1655	1738	0
Q Serve(g_s), s	1.1	49.6	49.7	1.5	0.0	0.0	2.8	0.0	0.0	26.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	49.6	49.7	1.5	0.0	0.0	2.8	0.0	0.0	26.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.00	0.21		0.63	1.00		0.00
Lane Grp Cap(c), veh/h	43	809	848	231	1902		100	0	0	717	377	0
V/C Ratio(X)	0.42	0.98	0.98	0.13	0.64		0.38	0.00	0.00	1.01	0.00	0.00
Avail Cap(c_a), veh/h	95	809	848	231	1902		238	0	0	717	377	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.33	0.65	0.65	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.8	51.0	51.0	39.4	0.0	0.0	54.0	0.0	0.0	47.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	13.4	13.3	0.1	1.1	0.0	0.9	0.0	0.0	36.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	28.2	29.6	0.7	0.3	0.0	1.1	0.0	0.0	14.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.4	64.4	64.3	39.5	1.1	0.0	54.8	0.0	0.0	83.3	0.0	0.0
LnGrp LOS	E	E	E	D	A		D			F		
Approach Vol, veh/h		1637			1246			38			725	
Approach Delay, s/veh		64.3			2.0			54.8			83.3	
Approach LOS		E			A			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	68.7		31.0	20.4	56.0		12.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	50.0		26.0	5.0	51.0		18.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0		28.0	3.5	51.7		4.8				
Green Ext Time (p_c), s	0.0	23.9		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	46.7	
HCM 7th LOS	D	

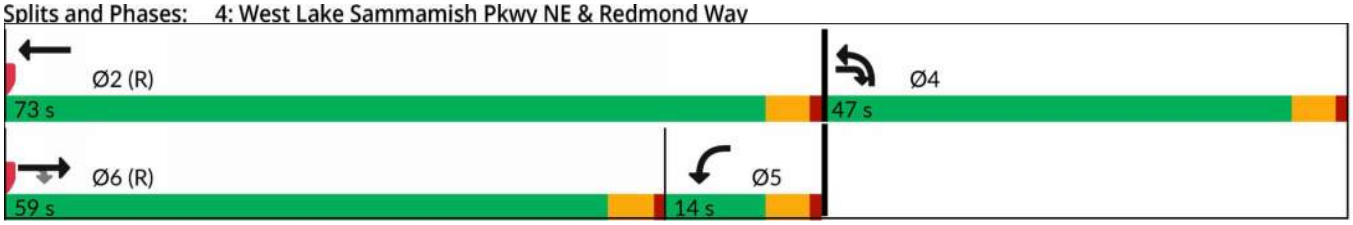
Notes
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1477	695	235	1075	393	210
Future Volume (vph)	1477	695	235	1075	393	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			3%	-4%	
Storage Length (ft)		125	150		0	75
Storage Lanes		1	2		1	0
Taper Length (ft)			25		25	
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	35	
Link Distance (ft)	850			951	587	
Travel Time (s)	19.3			21.6	11.4	
Confl. Peds. (#/hr)		14	14			2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov	Prot	NA	Prot	
Protected Phases	6	4	5	2	4	
Permitted Phases		6				
Detector Phase	6	4	5	2	4	
Switch Phase						
Minimum Initial (s)	8.0	6.0	5.0	20.0	6.0	
Minimum Split (s)	22.0	25.0	10.0	25.0	25.0	
Total Split (s)	59.0	47.0	14.0	73.0	47.0	
Total Split (%)	49.2%	39.2%	11.7%	60.8%	39.2%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 42 (35%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 4: West Lake Sammamish Pkwy NE & Redmond Way



HCM 7th Signalized Intersection Summary
4: West Lake Sammamish Pkwy NE & Redmond Way 03/21/2025

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1477	695	235	1075	393	210
Future Volume (veh/h)	1477	695	235	1075	393	210
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2003	2003	1832	1832	2027	2027
Adj Flow Rate, veh/h	1492	702	237	1086	397	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	1713	752	663	2394	441	
Arrive On Green	0.90	0.90	0.39	1.00	0.23	0.00
Sat Flow, veh/h	3906	1671	3385	3573	1926	0
Grp Volume(v), veh/h	1492	702	237	1086	398	0
Grp Sat Flow(s),veh/h/ln	1903	1671	1693	1741	1931	0
Q Serve(g_s), s	21.8	31.5	5.9	0.0	24.0	0.0
Cycle Q Clear(g_c), s	21.8	31.5	5.9	0.0	24.0	0.0
Prop In Lane		1.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	1713	752	663	2394	442	
V/C Ratio(X)	0.87	0.93	0.36	0.45	0.90	
Avail Cap(c_a), veh/h	1713	752	663	2394	676	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.83	0.83	0.93	0.00
Uniform Delay (d), s/veh	4.4	4.9	31.1	0.0	44.9	0.0
Incr Delay (d2), s/veh	3.1	11.2	0.3	0.5	9.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.5	2.3	0.2	12.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.5	16.1	31.4	0.5	54.8	0.0
LnGrp LOS	A	B	C	A	D	
Approach Vol, veh/h	2194			1323	398	
Approach Delay, s/veh	10.3			6.1	54.8	
Approach LOS	B			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		87.5		32.5	28.5	59.0
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		68.0		42.0	9.0	54.0
Max Q Clear Time (g_c+I1), s		2.0		26.0	7.9	33.5
Green Ext Time (p_c), s		6.7		1.5	0.1	12.9

Intersection Summary	
HCM 7th Control Delay, s/veh	13.4
HCM 7th LOS	B

Notes

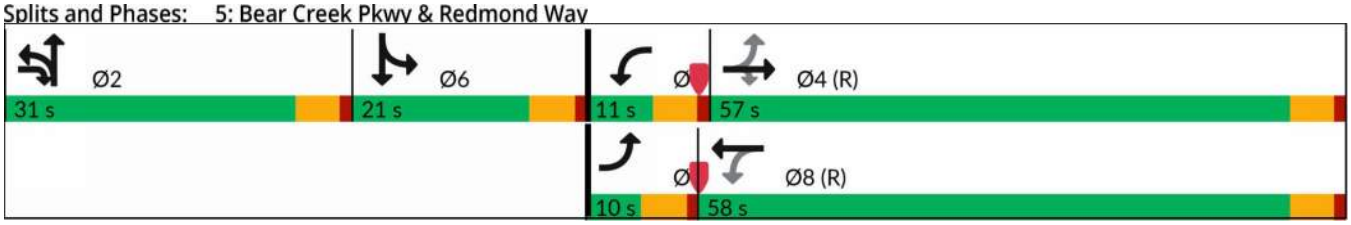
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: Bear Creek Pkwy & Redmond Way 03/21/2025

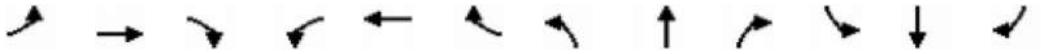
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	1082	566	78	1003	22	332	5	88	26	6	21
Future Volume (vph)	12	1082	566	78	1003	22	332	5	88	26	6	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-4%			0%			0%			0%	
Storage Length (ft)	150		175	150		0	125		0	0		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		951			828			488			167	
Travel Time (s)		21.6			18.8			11.1			4.6	
Confl. Peds. (#/hr)	9		15	15		9	9		19	19		9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							34%					
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	7	4	2	3	8		2	2		6	6	
Permitted Phases	4		4	8								
Detector Phase	7	4	2	3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	21.0		24.0	24.0		21.0	21.0	
Total Split (s)	10.0	57.0	31.0	11.0	58.0		31.0	31.0		21.0	21.0	
Total Split (%)	8.3%	47.5%	25.8%	9.2%	48.3%		25.8%	25.8%		17.5%	17.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes				
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	

Intersection Summary
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 64 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bear Creek Pkwy & Redmond Way



HCM 7th Signalized Intersection Summary
5: Bear Creek Pkwy & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1082	566	78	1003	22	332	5	88	26	6	21
Future Volume (veh/h)	12	1082	566	78	1003	22	332	5	88	26	6	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2042	2042	2042	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	1115	584	80	1034	23	219	177	91	27	6	22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	330	2174	1255	292	2096	47	312	201	103	112	20	75
Arrive On Green	0.03	1.00	1.00	0.04	0.59	0.59	0.17	0.17	0.17	0.06	0.06	0.06
Sat Flow, veh/h	1945	3880	1708	1795	3581	80	1810	1167	600	1810	330	1209
Grp Volume(v), veh/h	12	1115	584	80	517	540	219	0	268	27	0	28
Grp Sat Flow(s),veh/h/ln	1945	1940	1708	1795	1791	1870	1810	0	1768	1810	0	1538
Q Serve(g_s), s	0.3	0.0	0.0	2.2	20.2	20.2	13.7	0.0	17.8	1.7	0.0	2.1
Cycle Q Clear(g_c), s	0.3	0.0	0.0	2.2	20.2	20.2	13.7	0.0	17.8	1.7	0.0	2.1
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.34	1.00		0.79
Lane Grp Cap(c), veh/h	330	2174	1255	292	1048	1094	312	0	304	112	0	96
V/C Ratio(X)	0.04	0.51	0.47	0.27	0.49	0.49	0.70	0.00	0.88	0.24	0.00	0.29
Avail Cap(c_a), veh/h	384	2174	1255	313	1048	1094	392	0	383	241	0	205
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.28	0.28	0.28	0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	10.1	14.5	14.5	46.8	0.0	48.5	53.6	0.0	53.8
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.2	1.2	1.2	3.4	0.0	16.5	1.1	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.9	8.3	8.7	6.5	0.0	9.2	0.8	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.1	0.2	0.3	10.3	15.8	15.7	50.2	0.0	65.0	54.7	0.0	55.4
LnGrp LOS	B	A	A	B	B	B	D		E	D		E
Approach Vol, veh/h		1711			1137			487			55	
Approach Delay, s/veh		0.4			15.3			58.3			55.1	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	25.7	9.7	72.2	12.5	6.6	75.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	26.0	6.0	52.0	16.0	5.0	53.0
Max Q Clear Time (g_c+I1), s	19.8	4.2	2.0	4.1	2.3	22.2
Green Ext Time (p_c), s	0.9	0.0	9.1	0.1	0.0	3.8

Intersection Summary	
HCM 7th Control Delay, s/veh	14.6
HCM 7th LOS	B

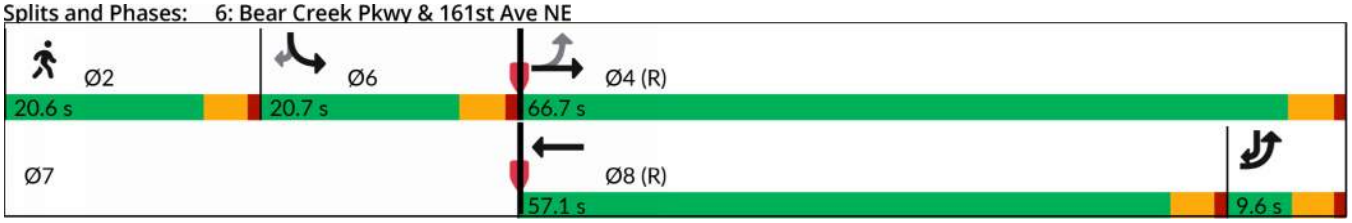
Notes
User approved volume balancing among the lanes for turning movement.

Lanes, Volumes, Timings
6: Bear Creek Pkwy & 161st Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	36	534	384	205	119	87	
Future Volume (vph)	36	534	384	205	119	87	
Satd. Flow (prot)	1787	1693	1513	0	1787	1599	
Flt Permitted	0.271				0.950		
Satd. Flow (perm)	510	1693	1513	0	1612	1445	
Satd. Flow (RTOR)			35			99	
Confl. Peds. (#/hr)	48			48	29	23	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	
Parking (#/hr)		0	0	0			
Shared Lane Traffic (%)							
Lane Group Flow (vph)	41	607	669	0	135	99	
Turn Type	pm+pt	NA	NA		Prot	pm+ov	
Protected Phases	7	4	8		6	7	2
Permitted Phases	4					6	
Detector Phase	7	4	8		6	7	
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.4	9.6	20.6		20.6	9.4	20.6
Total Split (s)	9.6	66.7	57.1		20.7	9.6	20.6
Total Split (%)	8.9%	61.8%	52.9%		19.2%	8.9%	19%
Yellow Time (s)	3.4	3.6	3.6		3.6	3.4	3.6
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.4	4.6	4.6		4.6	4.4	
Lead/Lag	Lag		Lead		Lag	Lag	Lead
Lead-Lag Optimize?							
Recall Mode	None	C-Max	C-Max		None	None	None
Act Effct Green (s)	73.6	73.4	63.8		13.0	18.4	
Actuated g/C Ratio	0.68	0.68	0.59		0.12	0.17	
v/c Ratio	0.10	0.53	0.74		0.63	0.29	
Control Delay (s/veh)	10.5	13.6	20.6		57.8	6.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	10.5	13.6	20.6		57.8	6.7	
LOS	B	B	C		E	A	
Approach Delay (s/veh)		13.4	20.6		36.2		
Approach LOS		B	C		D		

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 11 (10%), Referenced to phase 4:EBTL and 8:WBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 19.9	Intersection LOS: B
Intersection Capacity Utilization 51.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Bear Creek Pkwy & 161st Ave NE

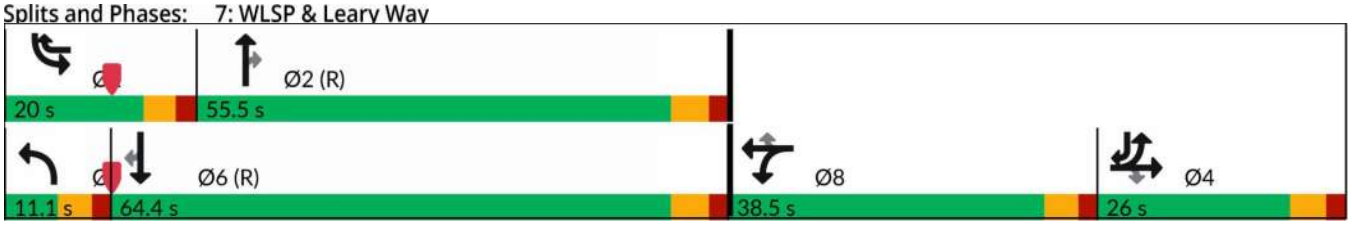


Lanes, Volumes, Timings
7: WLSP & Leary Way 03/21/2025

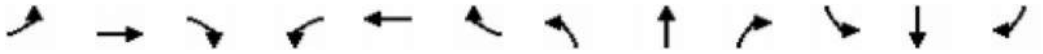
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	12	230	308	565	94	16	1097	1259	226	949	632
Future Volume (vph)	311	12	230	308	565	94	16	1097	1259	226	949	632
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-6%			3%			0%			0%	
Storage Length (ft)	0		175	200		150	200		275	175		0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		718			834			1781			1175	
Travel Time (s)		16.3			19.0			30.4			20.0	
Confl. Peds. (#/hr)	34					34			3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)				10%								
Turn Type	Split	NA	Perm	Split	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	4	4		8	8	1	5	2		1	6	4
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	1	5	2	2	1	6	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	7.0	5.0	10.0	10.0	7.0	10.0	5.0
Minimum Split (s)	10.9	10.9	10.9	38.5	38.5	12.5	10.5	33.9	33.9	12.5	15.9	10.9
Total Split (s)	26.0	26.0	26.0	38.5	38.5	20.0	11.1	55.5	55.5	20.0	64.4	26.0
Total Split (%)	18.6%	18.6%	18.6%	27.5%	27.5%	14.3%	7.9%	39.6%	39.6%	14.3%	46.0%	18.6%
Yellow Time (s)	3.9	3.9	3.9	3.5	3.5	3.5	3.5	3.9	3.9	3.5	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.9	5.9	5.5	5.5	5.5	5.5	5.9	5.9	5.5	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	None

Intersection Summary
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 90 (64%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 7: WLSP & Leary Way



HCM 7th Signalized Intersection Summary
7: WLSP & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	12	230	308	565	94	16	1097	1259	226	949	632
Future Volume (veh/h)	311	12	230	308	565	94	16	1097	1259	226	949	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2076	2076	2076	1817	1817	1817	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	13	242	306	620	99	17	1155	0	238	999	665
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	11	235	389	817	490	31	1298		184	1605	942
Arrive On Green	0.14	0.14	0.14	0.22	0.22	0.22	0.01	0.12	0.00	0.10	0.45	0.45
Sat Flow, veh/h	1905	76	1634	1731	3635	1470	1781	3554	1585	1781	3554	1582
Grp Volume(v), veh/h	340	0	242	306	620	99	17	1155	0	238	999	665
Grp Sat Flow(s),veh/h/ln	1981	0	1634	1731	1817	1470	1781	1777	1585	1781	1777	1582
Q Serve(g_s), s	20.1	0.0	20.1	23.3	22.3	6.8	1.3	44.8	0.0	14.5	30.0	41.1
Cycle Q Clear(g_c), s	20.1	0.0	20.1	23.3	22.3	6.8	1.3	44.8	0.0	14.5	30.0	41.1
Prop In Lane	0.96		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	0	235	389	817	490	31	1298		184	1605	942
V/C Ratio(X)	1.20	0.00	1.03	0.79	0.76	0.20	0.55	0.89		1.29	0.62	0.71
Avail Cap(c_a), veh/h	284	0	235	408	857	506	71	1298		184	1605	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.91	0.91	0.91	0.31	0.31	0.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	60.0	0.0	59.9	51.1	50.7	33.9	69.1	58.8	0.0	62.7	29.3	19.8
Incr Delay (d2), s/veh	117.1	0.0	67.1	9.3	3.8	0.3	4.7	3.3	0.0	162.0	1.6	4.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	0.0	12.7	11.1	10.6	2.5	0.6	22.0	0.0	14.8	12.9	21.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	177.1	0.0	127.1	60.4	54.5	34.1	73.8	62.0	0.0	224.7	30.9	23.8
LnGrp LOS	F		F	E	D	C	E	E		F	C	C
Approach Vol, veh/h		582			1025			1172			1902	
Approach Delay, s/veh		156.3			54.3			62.2			52.7	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	57.0		26.0	7.9	69.1		37.0				
Change Period (Y+Rc), s	5.5	5.9		5.9	5.5	5.9		5.5				
Max Green Setting (Gmax), s	14.5	49.6		20.1	5.6	58.5		33.0				
Max Q Clear Time (g_c+I1), s	16.5	46.8		22.1	3.3	43.1		25.3				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	10.1		4.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	68.3
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
8: Leary Way & 159th Pl NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø6
Lane Configurations								
Traffic Volume (vph)	107	1413	945	19	29	86		
Future Volume (vph)	107	1413	945	19	29	86		
Satd. Flow (prot)	1787	1881	3550	0	1805	1615		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1710	1881	3550	0	1805	1615		
Satd. Flow (RTOR)			3			89		
Confl. Peds. (#/hr)	41			41		29		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%		
Mid-Block Traffic (%)		0%	0%		50%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	110	1457	994	0	30	89		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	7	4!	8		2 6!	6 7	2	6
Permitted Phases								
Detector Phase	7	4	8		2 6	7		
Switch Phase								
Minimum Initial (s)	5.0	7.0	7.0				4.0	6.0
Minimum Split (s)	10.0	12.0	20.0				21.0	11.0
Total Split (s)	20.0	105.0	74.0				21.0	11.0
Total Split (%)	15.9%	83.3%	58.7%				17%	9%
Yellow Time (s)	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	1.0	1.0	1.0				1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0					
Total Lost Time (s)	5.0	5.0	5.0					
Lead/Lag	Lead							Lag
Lead-Lag Optimize?	Yes							Yes
Recall Mode	None	C-Max	C-Max				None	None
Act Effct Green (s)	11.7	107.3	83.0		17.6	18.3		
Actuated g/C Ratio	0.09	0.85	0.66		0.14	0.15		
v/c Ratio	0.67	0.91	0.42		0.12	0.29		
Control Delay (s/veh)	74.1	20.0	13.6		30.2	10.8		
Queue Delay	0.0	5.6	0.0		0.0	0.0		
Total Delay (s/veh)	74.1	25.7	13.6		30.2	10.8		
LOS	E	C	B		C	B		
Approach Delay (s/veh)		29.1	13.6		15.7			
Approach LOS		C	B		B			

Intersection Summary

Cycle Length: 126
Actuated Cycle Length: 126
Offset: 0 (0%), Referenced to phase 8:WBT and 4:EBT, Start of 1st Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay (s/veh): 22.7 Intersection LOS: C
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 8: Leary Way & 159th Pl NE

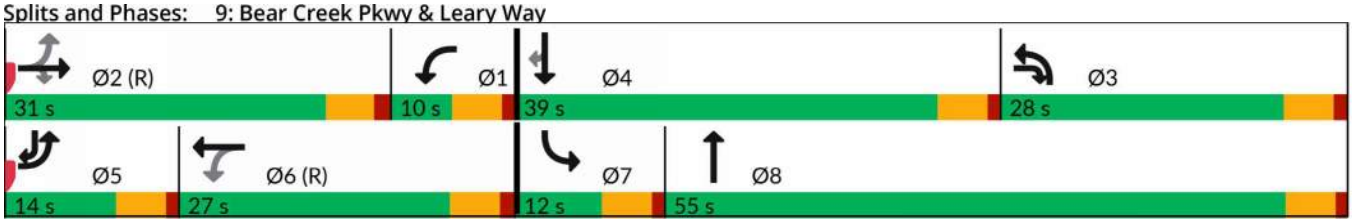
Lanes, Volumes, Timings
9: Bear Creek Pkwy & Leary Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	622	637	20	362	88	421	328	14	47	529	93
Future Volume (vph)	182	622	637	20	362	88	421	328	14	47	529	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		225	175		0	190		0	275		100
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		664			421			452			692	
Travel Time (s)		15.1			9.6			10.3			15.7	
Confl. Peds. (#/hr)	12		6	6		12	6		17	17		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6		3	8		7	4	5
Permitted Phases	2		2	6								4
Detector Phase	5	2	3	1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	6.0	5.0	8.0		6.0	6.0		5.0	5.0	5.0
Minimum Split (s)	10.0	26.2	11.2	10.0	24.2		11.2	28.0		10.0	26.0	10.0
Total Split (s)	14.0	31.0	28.0	10.0	27.0		28.0	55.0		12.0	39.0	14.0
Total Split (%)	13.0%	28.7%	25.9%	9.3%	25.0%		25.9%	50.9%		11.1%	36.1%	13.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.2	1.2	1.0	1.2		1.2	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	5.2	5.2	5.0	5.2		5.2	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max		None	None		None	None	None

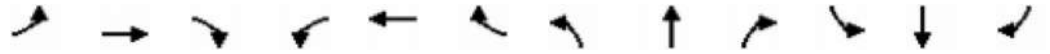
Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 108
Offset: 85 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bear Creek Pkwy & Leary Way



HCM 7th Signalized Intersection Summary
9: Bear Creek Pkwy & Leary Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	622	637	20	362	88	421	328	14	47	529	93
Future Volume (veh/h)	182	622	637	20	362	88	421	328	14	47	529	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	186	635	650	20	369	90	430	335	14	48	540	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	215	849	608	298	779	187	522	747	31	63	572	610
Arrive On Green	0.08	0.24	0.24	0.12	0.27	0.27	0.15	0.42	0.42	0.04	0.30	0.30
Sat Flow, veh/h	1781	3554	1545	1795	2849	686	3456	1781	74	1795	1885	1571
Grp Volume(v), veh/h	186	635	650	20	230	229	430	0	349	48	540	95
Grp Sat Flow(s),veh/h/ln	1781	1777	1545	1795	1791	1744	1728	0	1856	1795	1885	1571
Q Serve(g_s), s	9.0	17.9	25.8	0.0	11.6	11.9	13.0	0.0	14.5	2.9	30.2	2.2
Cycle Q Clear(g_c), s	9.0	17.9	25.8	0.0	11.6	11.9	13.0	0.0	14.5	2.9	30.2	2.2
Prop In Lane	1.00		1.00	1.00		0.39	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	215	849	608	298	490	477	522	0	778	63	572	610
V/C Ratio(X)	0.86	0.75	1.07	0.07	0.47	0.48	0.82	0.00	0.45	0.76	0.94	0.16
Avail Cap(c_a), veh/h	215	849	608	298	490	477	730	0	859	116	593	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.33	1.00	1.00	1.00	0.79	0.00	0.79	0.82	0.82	0.82
Uniform Delay (d), s/veh	39.4	38.1	32.8	38.9	32.7	32.8	44.5	0.0	22.4	51.6	36.7	8.2
Incr Delay (d2), s/veh	11.4	2.0	42.0	0.1	3.2	3.4	4.3	0.0	0.3	13.9	20.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	7.9	15.3	0.5	5.4	5.4	5.9	0.0	6.3	1.5	16.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	40.1	74.8	39.0	35.9	36.3	48.8	0.0	22.8	65.5	57.2	8.3
LnGrp LOS	D	D	F	D	D	D	D		C	E	E	A
Approach Vol, veh/h		1471			479			779			683	
Approach Delay, s/veh		56.8			36.2			37.1			51.0	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	31.0	21.5	37.8	14.0	34.7	8.8	50.5
Change Period (Y+Rc), s	5.2	* 5.2	5.2	5.0	5.0	5.2	5.0	* 5.2
Max Green Setting (Gmax), s	5.0	* 26	22.8	34.0	9.0	21.8	7.0	* 50
Max Q Clear Time (g_c+I1), s	2.0	27.8	15.0	32.2	11.0	13.9	4.9	16.5
Green Ext Time (p_c), s	0.0	0.0	1.3	0.6	0.0	1.2	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	48.3
HCM 7th LOS	D

Notes

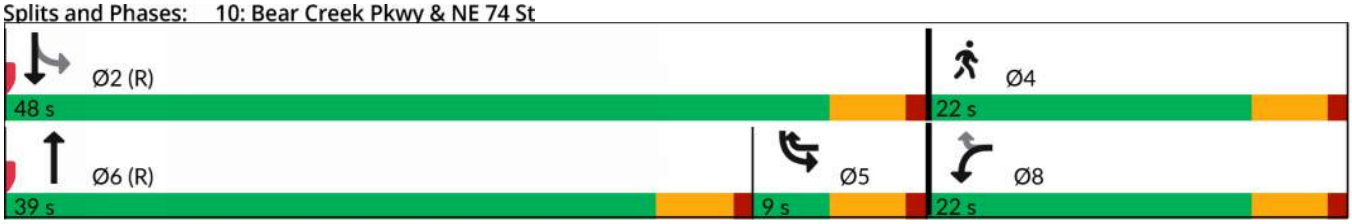
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
10: Bear Creek Pkwy & NE 74 St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	26	268	652	12	171	1035	
Future Volume (vph)	26	268	652	12	171	1035	
Satd. Flow (prot)	1805	1615	1857	0	1787	1881	
Flt Permitted	0.950				0.283		
Satd. Flow (perm)	1641	1615	1857	0	528	1881	
Satd. Flow (RTOR)		162	2				
Confl. Peds. (#/hr)	44			20	20		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	27	273	677	0	174	1056	
Turn Type	Prot	pm+ov	NA		pm+pt	NA	
Protected Phases	8	5	6		5	2	4
Permitted Phases		8			2		
Detector Phase	8	5	6		5	2	
Switch Phase							
Minimum Initial (s)	7.0	4.0	8.0		4.0	5.0	8.0
Minimum Split (s)	12.0	9.0	23.0		9.0	10.0	22.0
Total Split (s)	22.0	9.0	39.0		9.0	48.0	22.0
Total Split (%)	31.4%	12.9%	55.7%		12.9%	68.6%	31%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0	
Lead/Lag		Lag	Lead		Lag		
Lead-Lag Optimize?		Yes	Yes		Yes		
Recall Mode	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	13.0	18.7	41.3		51.8	53.8	
Actuated g/C Ratio	0.19	0.27	0.59		0.74	0.77	
v/c Ratio	0.08	0.50	0.62		0.36	0.73	
Control Delay (s/veh)	21.5	10.6	15.4		9.9	14.1	
Queue Delay	0.0	0.0	0.0		0.0	1.0	
Total Delay (s/veh)	21.5	10.6	15.4		9.9	15.1	
LOS	C	B	B		A	B	
Approach Delay (s/veh)	11.6		15.4			14.3	
Approach LOS	B		B			B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay (s/veh): 14.3	Intersection LOS: B
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Bear Creek Pkwy & NE 74 St



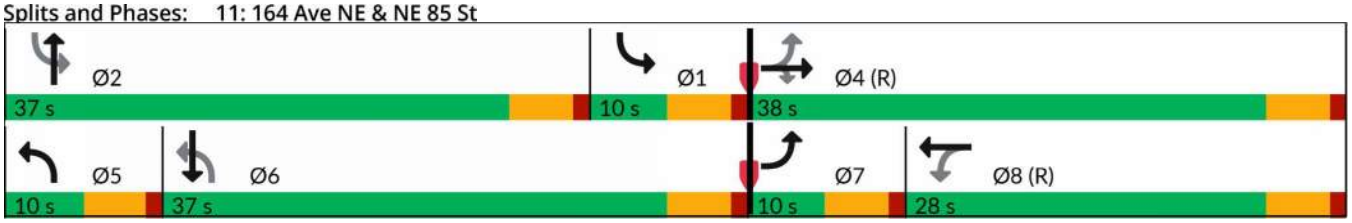
Lanes, Volumes, Timings
11: 164 Ave NE & NE 85 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	395	76	9	226	187	32	558	21	184	408	39
Future Volume (vph)	76	395	76	9	226	187	32	558	21	184	408	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		0	250		0	240		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			30	
Link Distance (ft)		469			304			659			473	
Travel Time (s)		10.7			6.9			16.0			10.8	
Confl. Peds. (#/hr)	12					12	22					22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	Perm	Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8			6			2		
Detector Phase	7	4	4	8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	8.0	8.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0		10.0	22.0		10.0	27.0	
Total Split (s)	10.0	38.0	38.0	28.0	28.0		10.0	37.0		10.0	37.0	
Total Split (%)	11.8%	44.7%	44.7%	32.9%	32.9%		11.8%	43.5%		11.8%	43.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max		None	None		None	None	

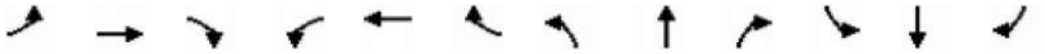
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 11: 164 Ave NE & NE 85 St



HCM 7th Signalized Intersection Summary
11: 164 Ave NE & NE 85 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	395	76	9	226	187	32	558	21	184	408	39
Future Volume (veh/h)	76	395	76	9	226	187	32	558	21	184	408	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	80	416	80	9	238	197	34	587	22	194	429	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	252	795	664	317	295	244	290	624	23	215	629	60
Arrive On Green	0.05	0.42	0.42	0.31	0.31	0.31	0.03	0.35	0.35	0.06	0.37	0.37
Sat Flow, veh/h	1810	1900	1587	909	952	788	1795	1803	68	1795	1689	161
Grp Volume(v), veh/h	80	416	80	9	0	435	34	0	609	194	0	470
Grp Sat Flow(s),veh/h/ln	1810	1900	1587	909	0	1740	1795	0	1870	1795	0	1850
Q Serve(g_s), s	2.4	13.9	2.6	0.6	0.0	19.6	1.0	0.0	26.8	3.9	0.0	18.2
Cycle Q Clear(g_c), s	2.4	13.9	2.6	5.2	0.0	19.6	1.0	0.0	26.8	3.9	0.0	18.2
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	252	795	664	317	0	539	290	0	648	215	0	690
V/C Ratio(X)	0.32	0.52	0.12	0.03	0.00	0.81	0.12	0.00	0.94	0.90	0.00	0.68
Avail Cap(c_a), veh/h	268	795	664	317	0	539	338	0	704	215	0	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.78	0.00	0.78	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	18.4	15.1	23.8	0.0	27.0	17.3	0.0	26.9	38.2	0.0	22.4
Incr Delay (d2), s/veh	0.3	2.5	0.4	0.2	0.0	12.3	0.1	0.0	16.0	34.8	0.0	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.3	1.0	0.1	0.0	9.6	0.4	0.0	14.3	5.8	0.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.2	20.9	15.5	24.0	0.0	39.3	17.4	0.0	43.0	73.0	0.0	24.6
LnGrp LOS	C	C	B	C		D	B		D	E		C
Approach Vol, veh/h		576			444			643			664	
Approach Delay, s/veh		20.0			39.0			41.6			38.8	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	34.4		40.6	7.8	36.7	9.2	31.3
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	32.0		33.0	5.0	32.0	5.0	23.0
Max Q Clear Time (g_c+I1), s	5.9	28.8		15.9	3.0	20.2	4.4	21.6
Green Ext Time (p_c), s	0.0	0.6		1.1	0.0	0.9	0.0	0.2

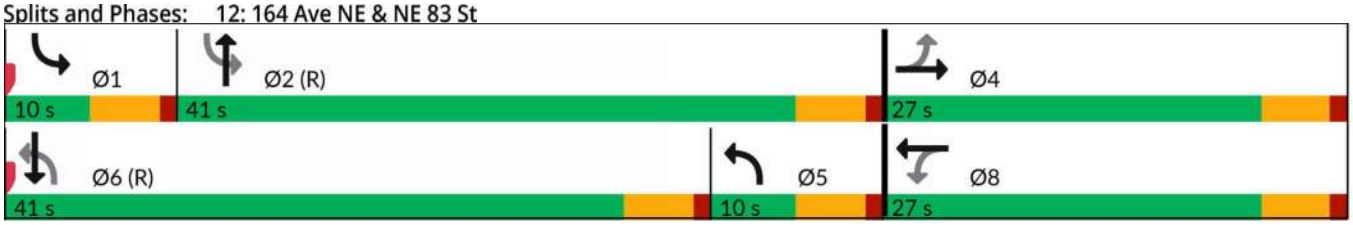
Intersection Summary	
HCM 7th Control Delay, s/veh	35.0
HCM 7th LOS	C

Lanes, Volumes, Timings
12: 164 Ave NE & NE 83 St 03/21/2025

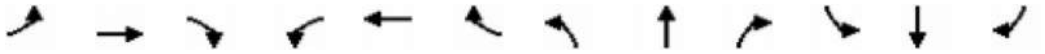
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	228	73	26	127	41	68	537	51	73	400	19
Future Volume (vph)	44	228	73	26	127	41	68	537	51	73	400	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			28			28	
Link Distance (ft)		968			599			662			659	
Travel Time (s)		22.0			13.6			16.1			16.0	
Confl. Peds. (#/hr)	34		47	47		34	24		31	31		24
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	3%	3%	3%	1%	1%	1%
Mid-Block Traffic (%)		40%			20%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6 5	2		2 1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	19.0		10.0	19.0	
Total Split (s)	27.0	27.0		27.0	27.0		10.0	41.0		10.0	41.0	
Total Split (%)	34.6%	34.6%		34.6%	34.6%		12.8%	52.6%		12.8%	52.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

Intersection Summary
Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 18 (23%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 12: 164 Ave NE & NE 83 St



HCM 7th Signalized Intersection Summary
12: 164 Ave NE & NE 83 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	228	73	26	127	41	68	537	51	73	400	19
Future Volume (veh/h)	44	228	73	26	127	41	68	537	51	73	400	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.94		0.90	0.98		0.90	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1885	1885	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	45	235	75	27	131	42	70	554	53	75	412	20
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	5	1	1	1	3	3	3	1	1	1
Cap, veh/h	257	299	95	148	308	99	577	871	83	609	821	40
Arrive On Green	0.08	0.08	0.08	0.23	0.23	0.23	0.23	1.00	1.00	0.05	0.46	0.46
Sat Flow, veh/h	1114	1287	411	1056	1327	425	1767	1662	159	1795	1780	86
Grp Volume(v), veh/h	45	0	310	27	0	173	70	0	607	75	0	432
Grp Sat Flow(s),veh/h/ln	1114	0	1697	1056	0	1752	1767	0	1821	1795	0	1866
Q Serve(g_s), s	3.0	0.0	14.0	1.9	0.0	6.6	0.0	0.0	0.0	1.4	0.0	12.7
Cycle Q Clear(g_c), s	9.6	0.0	14.0	15.9	0.0	6.6	0.0	0.0	0.0	1.4	0.0	12.7
Prop In Lane	1.00		0.24	1.00		0.24	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	257	0	394	148	0	407	577	0	954	609	0	861
V/C Ratio(X)	0.17	0.00	0.79	0.18	0.00	0.43	0.12	0.00	0.64	0.12	0.00	0.50
Avail Cap(c_a), veh/h	313	0	479	201	0	494	577	0	954	632	0	861
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	0.91	0.99	0.00	0.99	0.82	0.00	0.82	0.72	0.00	0.72
Uniform Delay (d), s/veh	35.2	0.0	34.1	35.9	0.0	25.5	12.5	0.0	0.0	7.3	0.0	14.7
Incr Delay (d2), s/veh	0.1	0.0	5.1	0.2	0.0	0.3	0.0	0.0	2.7	0.0	0.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.8	0.5	0.0	2.7	0.7	0.0	0.7	0.5	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.4	0.0	39.2	36.1	0.0	25.8	12.5	0.0	2.7	7.4	0.0	16.2
LnGrp LOS	D		D	D		C	B		A	A		B
Approach Vol, veh/h		355			200			677			507	
Approach Delay, s/veh		38.7			27.2			3.7			14.9	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	45.9		23.1	13.9	41.0		23.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	36.0		22.0	5.0	36.0		22.0				
Max Q Clear Time (g_c+I1), s	3.4	2.0		16.0	2.0	14.7		17.9				
Green Ext Time (p_c), s	0.0	1.8		0.5	0.0	1.0		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			16.8									
HCM 7th LOS			B									

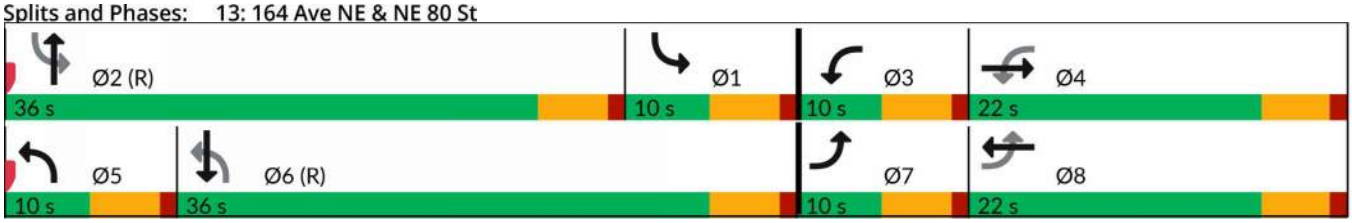
Lanes, Volumes, Timings
13: 164 Ave NE & NE 80 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	174	22	37	209	61	25	389	66	118	391	73
Future Volume (vph)	81	174	22	37	209	61	25	389	66	118	391	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	150		0	100		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			28			28	
Link Distance (ft)		178			313			347			662	
Travel Time (s)		4.9			8.5			8.4			16.1	
Confl. Peds. (#/hr)	27		24	24		27	37		22	22		37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8			4			6			2		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	10.0	17.0		10.0	18.0		10.0	18.0		10.0	19.0	
Total Split (s)	10.0	22.0		10.0	22.0		10.0	36.0		10.0	36.0	
Total Split (%)	12.8%	28.2%		12.8%	28.2%		12.8%	46.2%		12.8%	46.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes			Yes			Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	

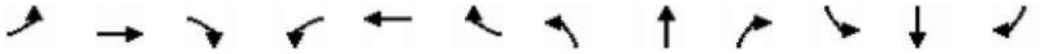
Intersection Summary

Area Type: Other
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 18 (23%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: 164 Ave NE & NE 80 St



HCM 7th Signalized Intersection Summary
13: 164 Ave NE & NE 80 St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	174	22	37	209	61	25	389	66	118	391	73
Future Volume (veh/h)	81	174	22	37	209	61	25	389	66	118	391	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.93	0.97		0.93	0.98		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	87	187	24	40	225	66	27	418	71	127	420	78
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	3	3	3	3	3	3
Cap, veh/h	221	333	43	293	258	76	528	609	104	452	714	133
Arrive On Green	0.11	0.41	0.41	0.04	0.19	0.19	0.04	0.53	0.53	0.21	0.95	0.95
Sat Flow, veh/h	1795	1622	208	1795	1373	403	1767	1533	260	1767	1511	281
Grp Volume(v), veh/h	87	0	211	40	0	291	27	0	489	127	0	498
Grp Sat Flow(s),veh/h/ln	1795	0	1830	1795	0	1776	1767	0	1794	1767	0	1792
Q Serve(g_s), s	3.0	0.0	6.9	1.3	0.0	12.4	0.6	0.0	15.7	0.0	0.0	2.7
Cycle Q Clear(g_c), s	3.0	0.0	6.9	1.3	0.0	12.4	0.6	0.0	15.7	0.0	0.0	2.7
Prop In Lane	1.00		0.11	1.00		0.23	1.00		0.15	1.00		0.16
Lane Grp Cap(c), veh/h	221	0	376	293	0	334	528	0	713	452	0	847
V/C Ratio(X)	0.39	0.00	0.56	0.14	0.00	0.87	0.05	0.00	0.69	0.28	0.00	0.59
Avail Cap(c_a), veh/h	239	0	399	342	0	387	591	0	713	452	0	847
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.00	0.88	0.92	0.00	0.92
Uniform Delay (d), s/veh	23.2	0.0	20.3	23.2	0.0	30.8	9.8	0.0	14.8	19.3	0.0	1.2
Incr Delay (d2), s/veh	0.8	0.0	1.3	0.2	0.0	16.6	0.0	0.0	4.7	0.2	0.0	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.6	0.6	0.0	6.7	0.2	0.0	5.9	1.6	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.0	0.0	21.6	23.4	0.0	47.3	9.8	0.0	19.5	19.5	0.0	3.9
LnGrp LOS	C		C	C		D	A		B	B		A
Approach Vol, veh/h		298			331			516			625	
Approach Delay, s/veh		22.3			44.4			19.0			7.1	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	36.0	7.9	21.0	7.2	41.9	9.2	19.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	31.0	5.0	17.0	5.0	31.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	2.0	17.7	3.3	8.9	2.6	4.7	5.0	14.4
Green Ext Time (p_c), s	0.1	1.4	0.0	0.4	0.0	1.7	0.0	0.3

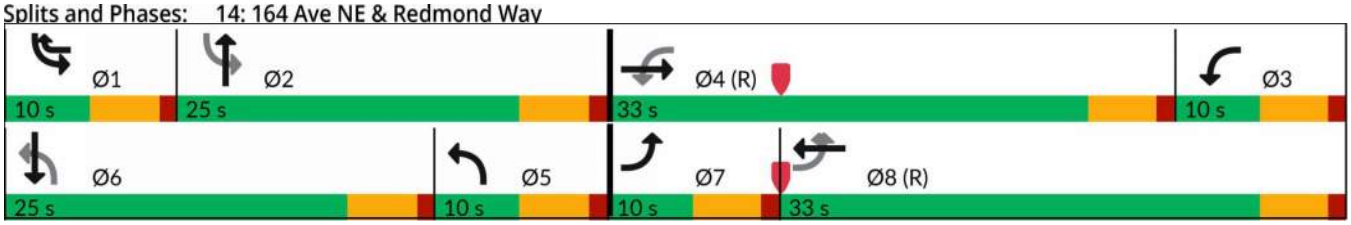
Intersection Summary	
HCM 7th Control Delay, s/veh	20.1
HCM 7th LOS	C

Lanes, Volumes, Timings
14: 164 Ave NE & Redmond Way 03/21/2025

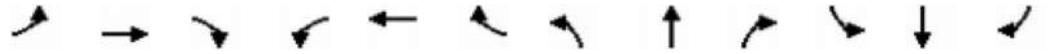
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	623	21	27	683	265	54	180	41	225	160	22
Future Volume (vph)	36	623	21	27	683	265	54	180	41	225	160	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	70		0	150		150
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		314			714			325			347	
Travel Time (s)		7.1			16.2			7.4			7.9	
Confl. Peds. (#/hr)	56		39	39		56	61		51	51		61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	1%	1%	1%	5%	5%	5%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		D.P+P	NA	pm+ov	D.P+P	NA		D.P+P	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	8			4		8	6			2		
Detector Phase	7	4		3	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	10.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	22.0		10.0	24.0	10.0	10.0	25.0		10.0	24.0	
Total Split (s)	10.0	33.0		10.0	33.0	10.0	10.0	25.0		10.0	25.0	
Total Split (%)	12.8%	42.3%		12.8%	42.3%	12.8%	12.8%	32.1%		12.8%	32.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 11 (14%), Referenced to phase 4:EBWB and 8:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 14: 164 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
14: 164 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	623	21	27	683	265	54	180	41	225	160	22
Future Volume (veh/h)	36	623	21	27	683	265	54	180	41	225	160	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	0.95		0.87	0.93		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1670	1670	1670	1697	1697	1697	1643	1643	1643
Adj Flow Rate, veh/h	37	642	22	28	704	273	56	186	42	232	165	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	3	3	1	1	1	5	5	5
Cap, veh/h	149	579	20	239	695	640	319	296	67	304	305	43
Arrive On Green	0.07	0.72	0.72	0.12	0.55	0.55	0.15	0.46	0.46	0.02	0.07	0.07
Sat Flow, veh/h	1603	1613	55	1590	1670	1320	1616	1298	293	1565	1393	194
Grp Volume(v), veh/h	37	0	664	28	704	273	56	0	228	232	0	188
Grp Sat Flow(s),veh/h/ln	1603	0	1668	1590	1670	1320	1616	0	1591	1565	0	1587
Q Serve(g_s), s	1.0	0.0	28.0	0.0	32.5	8.8	0.0	0.0	8.5	5.0	0.0	8.9
Cycle Q Clear(g_c), s	1.0	0.0	28.0	0.0	32.5	8.8	0.0	0.0	8.5	5.0	0.0	8.9
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.18	1.00		0.12
Lane Grp Cap(c), veh/h	149	0	599	239	695	640	319	0	363	304	0	348
V/C Ratio(X)	0.25	0.00	1.11	0.12	1.01	0.43	0.18	0.00	0.63	0.76	0.00	0.54
Avail Cap(c_a), veh/h	195	0	599	239	695	640	319	0	408	304	0	407
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.77	0.00	0.77	0.82	0.82	0.82	0.70	0.00	0.70	0.85	0.00	0.85
Uniform Delay (d), s/veh	18.1	0.0	11.0	31.0	17.4	9.8	25.6	0.0	18.7	28.9	0.0	32.4
Incr Delay (d2), s/veh	0.7	0.0	66.5	0.2	34.2	1.7	0.2	0.0	1.8	9.4	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	14.5	0.5	15.7	2.4	0.8	0.0	2.7	2.9	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.7	0.0	77.5	31.2	51.6	11.5	25.7	0.0	20.5	38.2	0.0	33.5
LnGrp LOS	B		F	C	F	B	C		C	D		C
Approach Vol, veh/h		701			1005			284			420	
Approach Delay, s/veh		74.4			40.2			21.5			36.1	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.8	12.2	33.0	10.7	22.1	7.8	37.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	28.0	5.0	20.0	5.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	10.5	2.0	30.0	2.0	10.9	3.0	34.5
Green Ext Time (p_c), s	0.0	1.0	0.0	0.0	0.0	0.7	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	47.2
HCM 7th LOS	D

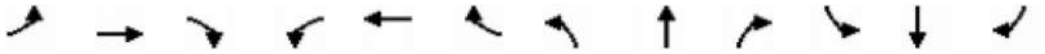
Lanes, Volumes, Timings
15: 164 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	290	54	15	106	27	44	217	22	29	164	33
Future Volume (vph)	30	290	54	15	106	27	44	217	22	29	164	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		429			743			151			325	
Travel Time (s)		11.7			20.3			3.4			7.4	
Confl. Peds. (#/hr)	18		30	30		18	43		25	25		43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Parking (#/hr)	0	0	0									
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		8.0	8.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		10.0	20.0		10.0	19.0	
Total Split (s)	42.0	42.0		42.0	42.0		10.0	26.0		10.0	26.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		12.8%	33.3%		12.8%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	

Intersection Summary
Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 77 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 15: 164 Ave NE & Cleveland St

HCM 7th Signalized Intersection Summary
15: 164 Ave NE & Cleveland St 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	290	54	15	106	27	44	217	22	29	164	33
Future Volume (veh/h)	30	290	54	15	106	27	44	217	22	29	164	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.97	1.00		0.97	0.94		0.88	0.95		0.88
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1697	1697	1697	1683	1683	1683	1697	1697	1697	1683	1683	1683
Adj Flow Rate, veh/h	32	312	58	16	114	29	47	233	24	31	176	35
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	88	693	123	108	686	166	219	278	29	177	235	47
Arrive On Green	0.59	0.59	0.59	1.00	1.00	1.00	0.04	0.19	0.19	0.06	0.35	0.35
Sat Flow, veh/h	65	1175	209	97	1163	281	1616	1492	154	1603	1328	264
Grp Volume(v), veh/h	402	0	0	159	0	0	47	0	257	31	0	211
Grp Sat Flow(s),veh/h/ln	1448	0	0	1541	0	0	1616	0	1645	1603	0	1593
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	11.7	0.0	0.0	9.1
Cycle Q Clear(g_c), s	11.9	0.0	0.0	0.0	0.0	0.0	1.8	0.0	11.7	0.0	0.0	9.1
Prop In Lane	0.08		0.14	0.10		0.18	1.00		0.09	1.00		0.17
Lane Grp Cap(c), veh/h	904	0	0	960	0	0	219	0	307	177	0	282
V/C Ratio(X)	0.44	0.00	0.00	0.17	0.00	0.00	0.22	0.00	0.84	0.18	0.00	0.75
Avail Cap(c_a), veh/h	904	0	0	960	0	0	256	0	443	229	0	429
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.00	0.99	0.00	0.00	1.00	0.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	9.0	0.0	0.0	0.0	0.0	0.0	25.1	0.0	30.6	33.9	0.0	23.7
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.4	0.0	0.0	0.5	0.0	9.2	0.4	0.0	3.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.0	0.1	0.0	0.0	0.7	0.0	5.3	0.6	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.5	0.0	0.0	0.4	0.0	0.0	25.6	0.0	39.8	34.3	0.0	27.3
LnGrp LOS	B			A			C		D	C		C
Approach Vol, veh/h		402			159			304			242	
Approach Delay, s/veh		10.5			0.4			37.6			28.2	
Approach LOS		B			A			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	19.5		51.0	8.2	18.8		51.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	21.0		37.0	5.0	21.0		37.0				
Max Q Clear Time (g_c+I1), s	2.0	13.7		13.9	3.8	11.1		2.0				
Green Ext Time (p_c), s	0.0	0.6		1.8	0.0	0.5		0.7				

Intersection Summary		
HCM 7th Control Delay, s/veh		20.4
HCM 7th LOS		C

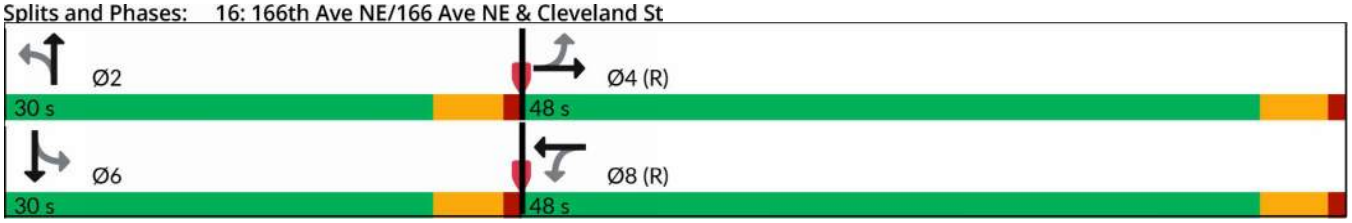
Lanes, Volumes, Timings
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	271	29	39	123	28	17	199	110	7	95	12
Future Volume (vph)	51	271	29	39	123	28	17	199	110	7	95	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	100		125	160		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		743			556			226			372	
Travel Time (s)		20.3			15.2			6.2			8.5	
Confl. Peds. (#/hr)	31		1	1		31	4		79	79		4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA	Free	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		Free	6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	48.0	48.0		48.0	48.0		30.0	30.0		30.0	30.0	
Total Split (%)	61.5%	61.5%		61.5%	61.5%		38.5%	38.5%		38.5%	38.5%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	

Intersection Summary

Area Type: CBD
Cycle Length: 78
Actuated Cycle Length: 78
Offset: 4 (5%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 16: 166th Ave NE/166 Ave NE & Cleveland St



HCM 7th Signalized Intersection Summary
16: 166th Ave NE/166 Ave NE & Cleveland St 03/21/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	271	29	39	123	28	17	199	110	7	95	12
Future Volume (veh/h)	51	271	29	39	123	28	17	199	110	7	95	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.86		1.00	0.90		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1710	1710	1710	1697	1697	1697	1697	1697	1697	1697	1697	1697
Adj Flow Rate, veh/h	54	285	31	41	129	29	18	209	0	7	100	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	170	847	88	221	660	141	252	353		185	297	39
Arrive On Green	1.00	1.00	1.00	0.66	0.66	0.66	0.21	0.21	0.00	0.42	0.42	0.42
Sat Flow, veh/h	177	1276	133	250	994	212	994	1697	1438	953	1427	185
Grp Volume(v), veh/h	370	0	0	199	0	0	18	209	0	7	0	113
Grp Sat Flow(s),veh/h/ln	1586	0	0	1456	0	0	994	1697	1438	953	0	1612
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	8.7	0.0	0.5	0.0	3.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.6	0.0	0.0	4.9	8.7	0.0	9.1	0.0	3.7
Prop In Lane	0.15		0.08	0.21		0.15	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	1105	0	0	1022	0	0	252	353		185	0	335
V/C Ratio(X)	0.33	0.00	0.00	0.19	0.00	0.00	0.07	0.59		0.04	0.00	0.34
Avail Cap(c_a), veh/h	1105	0	0	1022	0	0	364	544		292	0	517
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.89	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	0.0	0.0	0.0	5.0	0.0	0.0	28.0	27.9	0.0	24.2	0.0	19.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.4	0.0	0.0	0.4	5.6	0.0	0.3	0.0	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.2	0.0	0.0	0.3	4.0	0.0	0.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.7	0.0	0.0	5.4	0.0	0.0	28.4	33.5	0.0	24.5	0.0	21.2
LnGrp LOS	A			A			C	C		C		C
Approach Vol, veh/h		370			199			227			120	
Approach Delay, s/veh		0.7			5.4			33.1			21.4	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.2	56.8	21.2	56.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	43.0	25.0	43.0
Max Q Clear Time (g_c+I1), s	10.7	2.0	11.1	5.6
Green Ext Time (p_c), s	1.9	5.4	0.8	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	12.5
HCM 7th LOS	B

Notes

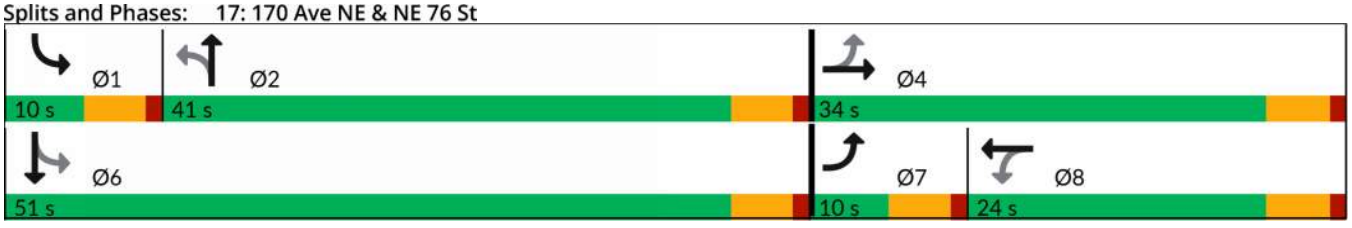
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
17: 170 Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	2	16	9	5	56	5	1015	2	18	556	116
Future Volume (vph)	169	2	16	9	5	56	5	1015	2	18	556	116
Satd. Flow (prot)	0	1772	0	0	1658	0	1787	3573	0	1787	3432	0
Flt Permitted		0.695			0.957		0.385			0.156		
Satd. Flow (perm)	0	1281	0	0	1591	0	707	3573	0	293	3432	0
Satd. Flow (RTOR)		6			58						45	
Confl. Peds. (#/hr)	5		25	25		5	21		31	31		21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	195	0	0	72	0	5	1059	0	19	700	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		8.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	24.0		24.0	24.0		18.0	18.0		10.0	19.0	
Total Split (s)	10.0	34.0		24.0	24.0		41.0	41.0		10.0	51.0	
Total Split (%)	11.8%	40.0%		28.2%	28.2%		48.2%	48.2%		11.8%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		None	Min	
Act Effct Green (s)		15.8			15.8		28.5	28.5		29.9	29.9	
Actuated g/C Ratio		0.28			0.28		0.51	0.51		0.53	0.53	
v/c Ratio		0.54			0.15		0.01	0.59		0.06	0.38	
Control Delay (s/veh)		23.6			8.1		10.8	13.0		8.1	8.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		23.6			8.1		10.8	13.0		8.1	8.4	
LOS		C			A		B	B		A	A	
Approach Delay (s/veh)		23.6			8.1			13.0			8.4	
Approach LOS		C			A			B			A	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 56.4	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay (s/veh): 12.2	Intersection LOS: B
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: 170 Ave NE & NE 76 St



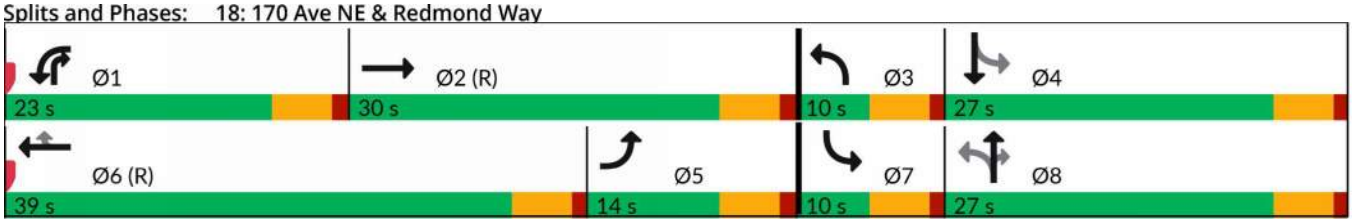
Lanes, Volumes, Timings
18: 170 Ave NE & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	911	91	419	783	268	32	413	800	160	185	17
Future Volume (vph)	67	911	91	419	783	268	32	413	800	160	185	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	250		0	125		0	100		0
Storage Lanes	1		0	2		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			661			498			439	
Travel Time (s)		13.3			15.0			11.3			10.0	
Confl. Peds. (#/hr)	20		6	6		20	15		27	27		15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases						6	8		8	4		
Detector Phase	5	2		1	6	6	3 8	8	1	7 4	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0	6.0	5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0	11.0	10.0	27.0	
Total Split (s)	14.0	30.0		23.0	39.0	39.0	10.0	27.0	23.0	10.0	27.0	
Total Split (%)	15.6%	33.3%		25.6%	43.3%	43.3%	11.1%	30.0%	25.6%	11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes			Yes			
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	

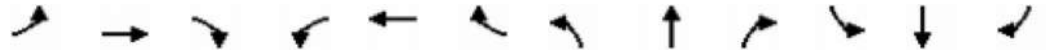
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 55 (61%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 18: 170 Ave NE & Redmond Way



HCM 7th Signalized Intersection Summary
18: 170 Ave NE & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	911	91	419	783	268	32	413	800	160	185	17
Future Volume (veh/h)	67	911	91	419	783	268	32	413	800	160	185	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.98		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	71	959	96	441	824	282	34	435	842	168	195	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	180	1061	106	538	1353	588	321	461	624	187	455	42
Arrive On Green	0.20	0.65	0.65	0.05	0.12	0.12	0.03	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1795	3281	328	3483	3582	1555	1795	1885	1545	1795	1695	156
Grp Volume(v), veh/h	71	523	532	441	824	282	34	435	842	168	0	213
Grp Sat Flow(s),veh/h/ln	1795	1791	1819	1742	1791	1555	1795	1885	1545	1795	0	1851
Q Serve(g_s), s	3.1	22.4	22.4	11.3	19.6	11.1	1.3	20.4	22.0	5.0	0.0	9.8
Cycle Q Clear(g_c), s	3.1	22.4	22.4	11.3	19.6	11.1	1.3	20.4	22.0	5.0	0.0	9.8
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	180	579	588	538	1353	588	321	461	624	187	0	496
V/C Ratio(X)	0.40	0.90	0.90	0.82	0.61	0.48	0.11	0.94	1.35	0.90	0.00	0.43
Avail Cap(c_a), veh/h	180	579	588	697	1353	588	363	461	624	187	0	496
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.97	0.97	0.97	0.40	0.40	0.40	0.78	0.78	0.78	0.43	0.00	0.43
Uniform Delay (d), s/veh	33.6	14.7	14.7	41.5	33.1	16.7	24.4	33.4	27.2	31.2	0.0	34.5
Incr Delay (d2), s/veh	0.5	19.5	19.3	1.9	0.8	1.1	0.0	23.7	165.2	20.1	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.7	7.7	5.4	9.5	4.7	0.5	12.1	41.3	2.2	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	34.2	34.0	43.4	33.9	17.8	24.4	57.1	192.4	51.3	0.0	34.6
LnGrp LOS	C	C	C	D	C	B	C	E	F	D		C
Approach Vol, veh/h		1126			1547			1311			381	
Approach Delay, s/veh		34.1			33.7			143.1			42.0	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	34.1	7.9	29.1	14.0	39.0	10.0	27.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	25.0	5.0	22.0	9.0	34.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	13.3	24.4	3.3	11.8	5.1	21.6	7.0	24.0
Green Ext Time (p_c), s	0.6	0.3	0.0	0.3	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	67.4
HCM 7th LOS	E

Lanes, Volumes, Timings
19: Bear Creek Crossing & Redmond Way 03/21/2025

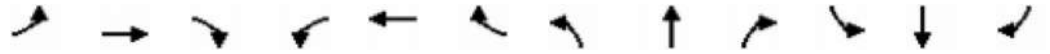
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	1665	10	19	1225	168	44	18	55	139	20	62
Future Volume (vph)	106	1665	10	19	1225	168	44	18	55	139	20	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	175		150	0		0	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		661			588			140			177	
Travel Time (s)		15.0			13.4			3.8			4.8	
Confl. Peds. (#/hr)	20		2	2		20	2		20	20		2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm	D.P+P	NA		D.P+P	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	4			8		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	8.0		6.0	8.0	8.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0		11.0	23.0	23.0	10.0	27.0		10.0	27.0	
Total Split (s)	12.0	42.0		11.0	41.0	41.0	10.0	27.0		10.0	27.0	
Total Split (%)	13.3%	46.7%		12.2%	45.6%	45.6%	11.1%	30.0%		11.1%	30.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes				Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	Max	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 17 (19%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 19: Bear Creek Crossing & Redmond Way

HCM 7th Signalized Intersection Summary
19: Bear Creek Crossing & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	1665	10	19	1225	168	44	18	55	139	20	62
Future Volume (veh/h)	106	1665	10	19	1225	168	44	18	55	139	20	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1870	1870	1870
Adj Flow Rate, veh/h	109	1716	10	20	1263	173	45	19	57	143	21	64
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	139	1501	9	152	1499	653	413	93	278	423	98	297
Arrive On Green	0.03	0.14	0.14	0.03	0.14	0.14	0.04	0.23	0.23	0.06	0.24	0.24
Sat Flow, veh/h	1795	3650	21	1795	3582	1559	1810	410	1229	1781	399	1216
Grp Volume(v), veh/h	109	841	885	20	1263	173	45	0	76	143	0	85
Grp Sat Flow(s),veh/h/ln	1795	1791	1881	1795	1791	1559	1810	0	1639	1781	0	1615
Q Serve(g_s), s	5.4	37.0	37.0	1.0	31.0	8.9	1.6	0.0	3.4	5.0	0.0	3.8
Cycle Q Clear(g_c), s	5.4	37.0	37.0	1.0	31.0	8.9	1.6	0.0	3.4	5.0	0.0	3.8
Prop In Lane	1.00		0.01	1.00		1.00	1.00		0.75	1.00		0.75
Lane Grp Cap(c), veh/h	139	736	773	152	1499	653	413	0	371	423	0	395
V/C Ratio(X)	0.79	1.14	1.14	0.13	0.84	0.26	0.11	0.00	0.20	0.34	0.00	0.22
Avail Cap(c_a), veh/h	140	736	773	152	1499	653	445	0	401	423	0	395
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.65	0.65	0.65	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.1	38.9	38.9	40.5	35.9	26.4	23.9	0.0	28.2	25.6	0.0	27.1
Incr Delay (d2), s/veh	2.6	65.9	66.5	0.2	3.9	0.6	0.1	0.0	0.2	0.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	31.1	32.8	0.4	15.6	3.8	0.7	0.0	1.4	2.4	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	104.8	105.4	40.7	39.8	27.0	24.0	0.0	28.4	26.0	0.0	28.4
LnGrp LOS	D	F	F	D	D	C	C		C	C		C
Approach Vol, veh/h		1835			1456			121			228	
Approach Delay, s/veh		101.6			38.3			26.8			26.9	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	42.0	8.4	27.0	11.9	42.7	10.0	25.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	37.0	5.0	22.0	7.0	36.0	5.0	22.0
Max Q Clear Time (g_c+I1), s	3.0	39.0	3.6	5.8	7.4	33.0	7.0	5.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	2.1	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	69.1
HCM 7th LOS	E

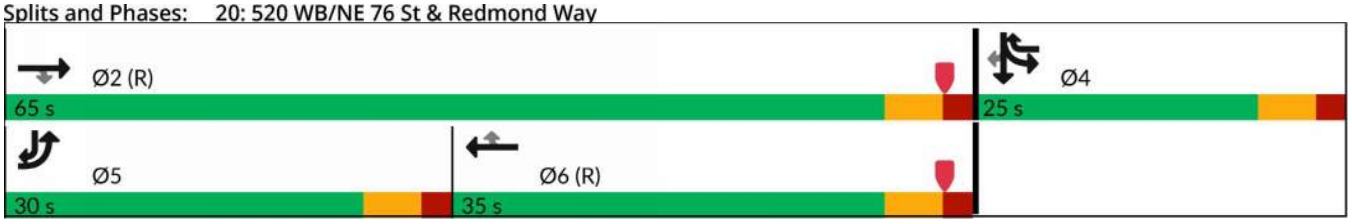
Lanes, Volumes, Timings
20: 520 WB/NE 76 St & Redmond Way 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	1133	274	0	962	396	0	0	0	73	394	450
Future Volume (vph)	460	1133	274	0	962	396	0	0	0	73	394	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		110	0		0	0		0	400		350
Storage Lanes	2		1	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		588			476			347			459	
Travel Time (s)		8.9			7.2			9.5			12.5	
Confl. Peds. (#/hr)	16					16						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm		NA	pm+ov				Split	NA	pm+ov
Protected Phases	5	2			6	4				4	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	2		6	4				4	4	5
Switch Phase												
Minimum Initial (s)	5.0	7.0	7.0		7.0	5.0				5.0	5.0	5.0
Minimum Split (s)	10.9	12.9	12.9		37.9	10.9				10.9	10.9	10.9
Total Split (s)	30.0	65.0	65.0		35.0	25.0				25.0	25.0	30.0
Total Split (%)	33.3%	72.2%	72.2%		38.9%	27.8%				27.8%	27.8%	33.3%
Yellow Time (s)	3.9	3.9	3.9		3.9	3.9				3.9	3.9	3.9
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0				2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0				0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9		5.9	5.9				5.9	5.9	5.9
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min		C-Min	None				None	None	None

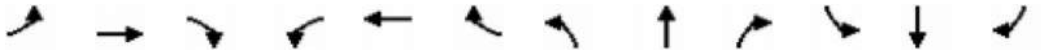
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 62 (69%), Referenced to phase 2:EBT and 6:WBT, Start of Red
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 20: 520 WB/NE 76 St & Redmond Way



HCM 7th Signalized Intersection Summary
20: 520 WB/NE 76 St & Redmond Way 03/21/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	1133	274	0	962	396	0	0	0	73	394	450
Future Volume (veh/h)	460	1133	274	0	962	396	0	0	0	73	394	450
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1885	1885				1870	1870	1870
Adj Flow Rate, veh/h	474	1168	282	0	992	408				75	406	464
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	1	1				2	2	2
Cap, veh/h	599	2352	1041	0	1502	996				378	397	609
Arrive On Green	0.12	0.44	0.44	0.00	0.84	0.84				0.21	0.21	0.21
Sat Flow, veh/h	3483	3582	1586	0	3676	1567				1781	1870	1585
Grp Volume(v), veh/h	474	1168	282	0	992	408				75	406	464
Grp Sat Flow(s),veh/h/ln	1742	1791	1586	0	1791	1567				1781	1870	1585
Q Serve(g_s), s	11.9	21.0	10.2	0.0	9.0	5.0				3.1	19.1	19.1
Cycle Q Clear(g_c), s	11.9	21.0	10.2	0.0	9.0	5.0				3.1	19.1	19.1
Prop In Lane	1.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	599	2352	1041	0	1502	996				378	397	609
V/C Ratio(X)	0.79	0.50	0.27	0.00	0.66	0.41				0.20	1.02	0.76
Avail Cap(c_a), veh/h	933	2352	1041	0	1502	996				378	397	609
HCM Platoon Ratio	0.67	0.67	0.67	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.22	0.22	0.22	0.00	0.75	0.75				1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	14.5	11.5	0.0	5.0	2.0				29.2	35.5	24.1
Incr Delay (d2), s/veh	0.6	0.2	0.1	0.0	1.7	0.9				0.3	51.1	5.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.8	3.3	0.0	2.0	1.6				1.4	14.2	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.8	14.7	11.6	0.0	6.7	2.9				29.4	86.6	29.8
LnGrp LOS	D	B	B		A	A				C	F	C
Approach Vol, veh/h		1924			1400						945	
Approach Delay, s/veh		20.2			5.6						54.1	
Approach LOS		C			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		65.0		25.0	21.4	43.6						
Change Period (Y+Rc), s		5.9		5.9	5.9	5.9						
Max Green Setting (Gmax), s		59.1		19.1	24.1	29.1						
Max Q Clear Time (g_c+I1), s		23.0		21.1	13.9	11.0						
Green Ext Time (p_c), s		13.5		0.0	1.5	9.3						

Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C

Notes
User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

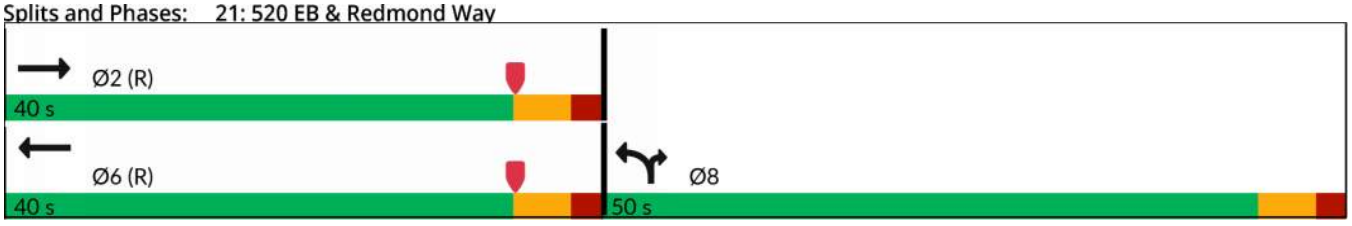
Lanes, Volumes, Timings
21: 520 EB & Redmond Way 03/21/2025

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1207	0	0	938	442	1419
Future Volume (vph)	1207	0	0	938	442	1419
Satd. Flow (prot)	5136	0	0	3574	3467	2814
Flt Permitted					0.950	
Satd. Flow (perm)	5136	0	0	3574	3467	2814
Satd. Flow (RTOR)						19
Confl. Peds. (#/hr)		8	8			16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1257	0	0	977	460	1478
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	10.0			10.0	5.0	5.0
Minimum Split (s)	37.9			15.9	37.9	37.9
Total Split (s)	40.0			40.0	50.0	50.0
Total Split (%)	44.4%			44.4%	55.6%	55.6%
Yellow Time (s)	3.9			3.9	3.9	3.9
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.9			5.9	5.9	5.9
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	31.4			31.4	46.8	46.8
Actuated g/C Ratio	0.35			0.35	0.52	0.52
v/c Ratio	0.70			0.78	0.25	1.00
Control Delay (s/veh)	16.1			27.9	12.9	47.7
Queue Delay	0.0			0.0	0.0	0.0
Total Delay (s/veh)	16.1			27.9	12.9	47.7
LOS	B			C	B	D
Approach Delay (s/veh)	16.1			27.9	39.4	
Approach LOS	B			C	D	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 62 (69%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay (s/veh): 29.7 Intersection LOS: C
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 21: 520 EB & Redmond Way



Lanes, Volumes, Timings
22: 164 Ave NE & NE 76 St 03/21/2025

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	2	54	171	37	1	23	98	102	2	51	152	46
Future Volume (vph)	2	54	171	37	1	23	98	102	2	51	152	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			25				25				25	
Link Distance (ft)			539				724				311	
Travel Time (s)			14.7				19.7				8.5	
Confl. Peds. (#/hr)	122	1		84	7	84		1	84	122		7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control			Yield				Yield				Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	4	78	122	28
Future Volume (vph)	4	78	122	28
Ideal Flow (vphpl)	1900	1900	1900	1900
Link Speed (mph)			25	
Link Distance (ft)			149	
Travel Time (s)			4.1	
Confl. Peds. (#/hr)	1	7		122
Peak Hour Factor	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	3%	3%	3%	3%
Shared Lane Traffic (%)				
Sign Control			Yield	

Intersection Summary

Intersection	
Intersection Delay, s/veh	6.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	314	266	299	276
Demand Flow Rate, veh/h	317	266	305	284
Vehicles Circulating, veh/h	280	321	375	211
Vehicles Exiting, veh/h	215	359	222	376
Ped Vol Crossing Leg, #/h	122	7	84	1
Ped Cap Adj	0.978	0.999	0.988	1.000
Approach Delay, s/veh	6.8	6.3	7.5	5.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	317	266	305	284
Cap Entry Lane, veh/h	1037	995	941	1113
Entry HV Adj Factor	0.990	1.000	0.981	0.970
Flow Entry, veh/h	314	266	299	276
Cap Entry, veh/h	1004	994	913	1079
V/C Ratio	0.313	0.268	0.328	0.255
Control Delay, s/veh	6.8	6.3	7.5	5.8
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	1

Lanes, Volumes, Timings
23: 166th Ave NE & NE 76 St 03/21/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	172	46	28	89	76	24	126	22	21	95	51
Future Volume (vph)	123	172	46	28	89	76	24	126	22	21	95	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			10			10	
Link Distance (ft)		724			1313			308			226	
Travel Time (s)		19.7			35.8			21.0			15.4	
Confl. Peds. (#/hr)	5		49	49		5	9		72	72		9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Parking (#/hr)	0	0	0				0	0	0			
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary
Area Type: Other
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	123	172	46	28	89	76	24	126	22	21	95	51
Future Vol, veh/h	123	172	46	28	89	76	24	126	22	21	95	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	0
Mvmt Flow	131	183	49	30	95	81	26	134	23	22	101	54
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	14.3	10.8	11.4	10.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	36%	15%	18%	0%
Vol Thru, %	73%	50%	46%	82%	0%
Vol Right, %	13%	13%	39%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	172	341	193	116	51
LT Vol	24	123	28	21	0
Through Vol	126	172	89	95	0
RT Vol	22	46	76	0	51
Lane Flow Rate	183	363	205	123	54
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.297	0.534	0.306	0.22	0.085
Departure Headway (Hd)	5.844	5.298	5.358	6.429	5.624
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	613	678	669	557	634
Service Time	3.901	3.343	3.41	4.186	3.381
HCM Lane V/C Ratio	0.299	0.535	0.306	0.221	0.085
HCM Control Delay, s/veh	11.4	14.3	10.8	11	8.9
HCM Lane LOS	B	B	B	B	A
HCM 95th-tile Q	1.2	3.2	1.3	0.8	0.3

Lanes, Volumes, Timings
24: 164th Ave NE & NE 74th St 03/21/2025

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	89	52	96	98	104	76
Future Volume (vph)	89	52	96	98	104	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10			10	10	
Link Distance (ft)	321			415	239	
Travel Time (s)	21.9			28.3	16.3	
Confl. Peds. (#/hr)	75	214	36			36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Parking (#/hr)	0	0	0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	89	52	96	98	104	76
Future Vol, veh/h	89	52	96	98	104	76
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	100	58	108	110	117	85
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	9	9.4	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	49%	63%	0%
Vol Thru, %	51%	0%	58%
Vol Right, %	0%	37%	42%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	194	141	180
LT Vol	96	89	0
Through Vol	98	0	104
RT Vol	0	52	76
Lane Flow Rate	218	158	202
Geometry Grp	1	1	1
Degree of Util (X)	0.279	0.209	0.242
Departure Headway (Hd)	4.604	4.738	4.301
Convergence, Y/N	Yes	Yes	Yes
Cap	780	756	833
Service Time	2.635	2.776	2.331
HCM Lane V/C Ratio	0.279	0.209	0.242
HCM Control Delay, s/veh	9.4	9	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.8	0.9

Lanes, Volumes, Timings
25: 166th Ave NE/166th Ave NE & NE 74th St 03/21/2025

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	45	110	49	47	96
Future Volume (vph)	57	45	110	49	47	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	10		10			10
Link Distance (ft)	375		216			226
Travel Time (s)	25.6		14.7			15.4
Confl. Peds. (#/hr)	53	105		34	34	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	3%	3%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop		Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	45	110	49	47	96
Future Vol, veh/h	57	45	110	49	47	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	0	0	3	3
Mvmt Flow	62	49	120	53	51	104
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	8.2	8.2	8.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	56%	33%
Vol Thru, %	69%	0%	67%
Vol Right, %	31%	44%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	159	102	143
LT Vol	0	57	47
Through Vol	110	0	96
RT Vol	49	45	0
Lane Flow Rate	173	111	155
Geometry Grp	1	1	1
Degree of Util (X)	0.199	0.138	0.192
Departure Headway (Hd)	4.144	4.483	4.451
Convergence, Y/N	Yes	Yes	Yes
Cap	868	802	808
Service Time	2.158	2.501	2.467
HCM Lane V/C Ratio	0.199	0.138	0.192
HCM Control Delay, s/veh	8.2	8.2	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0.7

Lanes, Volumes, Timings
26: Bear Creek Pkwy & 164th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	138	915	558	35	72	100
Future Volume (vph)	138	915	558	35	72	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			150	0	125
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		500	450		401	
Travel Time (s)		11.4	10.2		27.3	
Confl. Peds. (#/hr)	12			12		18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Parking (#/hr)		0				
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	138	915	558	35	72	100
Future Vol, veh/h	138	915	558	35	72	100
Conflicting Peds, #/hr	12	0	0	12	0	18
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	125
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	144	953	581	36	75	104

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	630	0	-	0	1834	611
Stage 1	-	-	-	-	593	-
Stage 2	-	-	-	-	1241	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	957	-	-	-	84	494
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	273	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	948	-	-	-	~ 70	481
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	270	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.24	0	24.02
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	948	-	-	-	185	481
HCM Lane V/C Ratio	0.152	-	-	-	0.406	0.216
HCM Ctrl Dly (s/v)	9.5	-	-	-	37.2	14.5
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.8	0.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s
+: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
27: Bear Creek Pkwy & 166th Ave NE 03/21/2025

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	91	897	468	77	77	127
Future Volume (vph)	91	897	468	77	77	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	1%		-1%	
Storage Length (ft)	200			150	0	150
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Link Speed (mph)		30	30		10	
Link Distance (ft)		220	462		360	
Travel Time (s)		5.0	10.5		24.5	
Confl. Peds. (#/hr)	22			22		27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	897	468	77	77	127
Future Vol, veh/h	91	897	468	77	77	127
Conflicting Peds, #/hr	22	0	0	22	0	27
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	-1	1	-	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	96	944	493	81	81	134

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	596	0	-	0	1650	542
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	1136	-
Critical Hdwy	4.11	-	-	-	6.23	6.13
Critical Hdwy Stg 1	-	-	-	-	5.23	-
Critical Hdwy Stg 2	-	-	-	-	5.23	-
Follow-up Hdwy	2.209	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	986	-	-	-	118	547
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	325	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	968	-	-	-	103	525
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	319	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.84	0	19.98
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	968	-	-	-	226	525
HCM Lane V/C Ratio	0.099	-	-	-	0.358	0.255
HCM Ctrl Dly (s/v)	9.1	-	-	-	29.5	14.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.5	1

Appendix F

ITE Pass-by Data for LUC 820

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	820								
Land Use	Shopping Center (> 150k)								
Setting	General Urban/Suburban								
Time Period	Weekday PM Peak Period								
# Data Sites	8 Sites with GLA between 150 and 300k				16 Sites with GLA between 300 and 900k				
Average Pass-By Rate	29% for Sites with GLA between 150 and 300k				19% for Sites with GLA between 300 and 900k				
	Pass-By Characteristics for Individual Sites								
		Survey	#	Pass-By	Non-Pass-By Trips			Adj Street Peak	
GLA (000)	State or Province	Year	Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
213	Florida	1990	312	28	31	41	72	—	33
225	Illinois	1994	264	35	32	33	65	1970	24
227.9	Kentucky	1993	—	34	35	31	66	—	34
235	Kentucky	1993	211	35	29	36	65	2593	2
255	Iowa	1994	222	23	38	39	77	3706	24
256	Connecticut	1994	208	27	51	22	73	3422	24
293	Illinois	1994	282	24	70	6	76	4606	13
294	Pennsylvania	1994	213	24	48	18	76	4055	24
350	Massachusetts	1994	224	18	45	37	82	2112	24
361	Virginia	1994	315	17	54	29	83	2034	24
375	North Carolina	1994	214	29	48	23	71	2053	24
413	Texas	1994	228	28	51	21	72	589	24
418	Maryland	1994	281	20	50	30	80	5610	24
450	California	1994	321	23	49	28	77	2787	24
476	Washington	1994	234	25	53	22	75	3427	24
488	Texas	1994	257	12	75	13	88	1094	13
560	Virginia	1994	437	19	49	32	81	3051	24
581	Colorado	1994	296	18	53	29	82	2939	24
598	Colorado	1994	205	17	55	28	83	3840	24
633	Texas	1994	257	10	64	26	90	—	24
667	Illinois	1994	200	16	53	31	84	2770	24
738	New Jersey	1994	283	13	75	12	87	8059	24
800	California	1994	205	21	51	28	79	7474	24
808	California	1994	240	13	73	14	87	4035	24

Appendix G

Trip Generation Calculations

RTC Master Plan - Scenario 1 (All Residential Option) - Phases 1 - 3
Weekday Daily Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Directional Split [2] Exit	Vehicle Trip Generation Enter	Vehicle Trip Generation Exit	Vehicle Trip Generation Total
DAILY									
Master Plan Scenario 1 (Phases 1 - 3)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Buildings 4IC East & West (Phase 2)	550	DU	221	2.01	50%	50%	553	553	1,106
Building 4B (Phase 3)	150	DU	221	2.01	50%	50%	151	151	302
	700						704	704	1,408
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	385,255	GLA							
New Shopping Center (proposed with project)	29,000	GLA							
	414,255	GLA	820	T = 26.11(X) + 5863.73	50%	50%	8,340	8,340	16,680
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 26.11(X) + 5863.73	50%	50%	-8,076	-8,075	-16,151
						GROSS WEEKDAY DAILY TRIP GENERATION =	**9,044**	**9,044**	**18,088**
						Internal Reduction =	***0***	***0***	***0***
						Pass-By =	***0***	***0***	***0***
						NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)	**9,044**	**9,044**	**18,088**
						EXISTING USES NET TRIP GENERATION	**-8,076**	**-8,075**	**-16,151**
						TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)	**968**	**969**	**1,937**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	700	DU	221				704	704	1,408
Retail (Shopping Center >150k)	20,262	GLA	820				264	265	529
							968	969	1,937

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

RTC Master Plan - Scenario 1 (All Residential Option) - Phases 1 - 3
Weekday AM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
AM PEAK HOUR									
Master Plan Scenario 1 (Phases 1 - 3)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Buildings 4IC East & West (Phase 2)	550	DU	221	0.25	15%	85%	21	117	138
Building 4B (Phase 3)	150	DU	221	0.25	15%	85%	6	32	38
	700						27	149	176
Internal Reduction [3]							*-1*	*-1*	-2
					Subtotal (less internal) =		26	148	174
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	385,255	GLA							
New Shopping Center (proposed with project)	29,000	GLA							
	414,255	GLA	820	T = 0.59(X) + 133.55	62%	38%	234	144	378
Internal Reduction [3]							*-1*	*-1*	-2
					Subtotal (less internal) =		233	143	376
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 0.59(X) + 133.55	62%	38%	-227	-139	-366
					GROSS AM PEAK HOUR TRIP GENERATION =		**261**	**293**	**554**
					Internal Reduction =		***-2***	***-2***	***-4***
					Pass-By =		***0***	***0***	***0***
					NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)		**259**	**291**	**550**
					EXISTING USES NET TRIP GENERATION		**-227**	**-139**	**-366**
					TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)		**32**	**152**	**184**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	700	DU	221				26	148	174
Retail (Shopping Center >150k)	20,262	GLA	820				6	4	10
							32	152	184

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

RTC Master Plan - Scenario 1 (All Residential Option) - Phases 1 - 3
Weekday PM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
PM PEAK HOUR									
Master Plan Scenario 1 (Phases 1 - 3)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Buildings 4IC East & West (Phase 2)	550	DU	221	0.25	74%	26%	102	36	138
Building 4B (Phase 3)	150	DU	221	0.25	74%	26%	28	10	38
	700						130	46	176
Internal Reduction [3]							*-60*	*-19*	*-79*
						Subtotal (less internal) =	70	27	97
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	385,255	GLA							
New Shopping Center (proposed with project)	29,000	GLA							
	414,255	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	754	816	1,570
Internal Reduction [3]							*-19*	*-60*	*-79*
Pass-by [4]	*19%*						*-140*	*-143*	*-283*
						Subtotal (less internal and pass-by) =	595	613	1,208
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	-727	-788	-1,515
Pass-by [4]	*19%*						*138*	*150*	*288*
							-589	-638	-1,227
						GROSS PM PEAK HOUR TRIP GENERATION =	**884**	**862**	**1,746**
						Internal Reduction =	***-79***	***-79***	***-158***
						Pass-By =	***-140***	***-143***	***-283***
						NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)	**665**	**640**	**1,305**
						EXISTING USES NET TRIP GENERATION	**-589**	**-638**	**-1,227**
						TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)	**76**	**2**	**78**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	700	DU	221				70	27	97
Retail (Shopping Center >150k)	20,262	GLA	820				6	-25	-19
							76	2	78

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE),*Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

[4] Based on pass-by % documented in the appendices of the ITE,*Trip Generation Manual* , 11th Edition (2021).

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 1 - Ph 1 to 3	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	3/27/2025

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	414,255	GLA	378	234	144
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	700	DU	176	27	149
Hotel				0		
All Other Land Uses[2]				0		
Total				554	261	293

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	554	261	293
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[3]	550	259	291
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	0%	1%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	4%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Project Name:	RTC Master Plan
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	234	234	1.00	144	144
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	27	27	1.00	149	149
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	42		19	0	20	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	1	30	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		75	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	19		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	40	0	0		0
Hotel	0	9	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	233	234	233	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	26	27	26	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	143	144	143	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	148	149	148	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 1 - Ph 1 to 3	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	3/27/2025

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	414,255	GLA	1570	754	816
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	700	DU	176	130	46
Hotel				0		
All Other Land Uses[2]				0		
Total				1746	884	862

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	60	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	19	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,746	884	862
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips[3]	1,588	805	783
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	3%	7%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	41%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Exhibit E

Project Name:	RTC Master Plan
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	754	754	1.00	816	816
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	130	130	1.00	46	46
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	16		237	33	212	41
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	19	10	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		60	0	0	5	0
Retail	0		0	0	60	0
Restaurant	0	377		0	21	0
Cinema/Entertainment	0	30	0		5	0
Residential	0	75	0	0		0
Hotel	0	15	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	19	735	754	735	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	60	70	130	70	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	60	756	816	756	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	19	27	46	27	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

RTC Master Plan - Scenario 1 (All Residential Option) - Full Buildout (Phases 1 - 5)
Weekday Daily Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Directional Split [2] Exit	Vehicle Trip Generation Enter	Vehicle Trip Generation Exit	Vehicle Trip Generation Total
DAILY									
Master Plan Scenario 1 Full Buildout (Phases 1 - 5)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Buildings 4IC East & West (Phase 2)	550	DU	221	2.01	50%	50%	553	553	1,106
Building 4B (Phase 3)	150	DU	221	2.01	50%	50%	151	151	302
Building 3A (Phase 4)	165	DU	221	2.01	50%	50%	166	166	332
Building 3D (Phase 5)	155	DU	221	2.01	50%	50%	156	156	312
	1,020						1,026	1,026	2,052
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	296,169	GLA							
New Shopping Center (proposed with project)	63,000	GLA							
	359,169	GLA	820	T = 26.11(X) + 5863.73	50%	50%	7,621	7,621	15,242
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 26.11(X) + 5863.73	50%	50%	-8,076	-8,075	-16,151
GROSS WEEKDAY DAILY TRIP GENERATION =							**8,647**	**8,647**	**17,294**
Internal Reduction =							***0***	***0***	***0***
Pass-By =							***0***	***0***	***0***
NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)							**8,647**	**8,647**	**17,294**
EXISTING USES NET TRIP GENERATION							**-8,076**	**-8,075**	**-16,151**
TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)							**571**	**572**	**1,143**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	1,020	DU	221				1,026	1,026	2,052
Retail (Shopping Center >150k)	-34,824	GLA	820				-455	-454	-909
							571	572	1,143

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

RTC Master Plan - Scenario 1 (All Residential Option) - Full Buildout (Phases 1 - 5)
Weekday AM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
AM PEAK HOUR									
Master Plan Scenario 1 Full Buildout (Phases 1 - 5)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Buildings 4IC East & West (Phase 2)	550	DU	221	0.25	15%	85%	21	117	138
Building 4B (Phase 3)	150	DU	221	0.25	15%	85%	6	32	38
Building 3A (Phase 4)	165	DU	221	0.25	15%	85%	6	35	41
Building 3D (Phase 5)	155	DU	221	0.25	15%	85%	6	33	39
	1,020						39	217	256
Internal Reduction [3]							*-1*	*-2*	*-3*
					Subtotal (less internal) =		38	215	253
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	296,169	GLA							
New Shopping Center (proposed with project)	63,000	GLA							
	359,169	GLA	820	T = 0.59(X) + 133.55	62%	38%	214	131	345
Internal Reduction [3]							*-2*	*-1*	*-3*
					Subtotal (less internal) =		212	130	342
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 0.59(X) + 133.55	62%	38%	-227	-139	-366
					GROSS AM PEAK HOUR TRIP GENERATION =		**253**	**348**	**601**
					Internal Reduction =		***-3***	***-3***	***-6***
					Pass-By =		***0***	***0***	***0***
					NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)		**250**	**345**	**595**
					EXISTING USES NET TRIP GENERATION		**-227**	**-139**	**-366**
					TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)		**23**	**206**	**229**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	1,020	DU	221				38	215	253
Retail (Shopping Center >150k)	-34,824	GLA	820				-15	-9	-24
							23	206	229

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

RTC Master Plan - Scenario 1 (All Residential Option) - Full Buildout (Phases 1 - 5)
Weekday PM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Directional Split [2] Exit	Vehicle Trip Generation Enter	Vehicle Trip Generation Exit	Vehicle Trip Generation Total
PM PEAK HOUR									
Master Plan Scenario 1 Full Buildout (Phases 1 - 5)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Buildings 4IC East & West (Phase 2)	550	DU	221	0.25	74%	26%	102	36	138
Building 4B (Phase 3)	150	DU	221	0.25	74%	26%	28	10	38
Building 3A (Phase 4)	165	DU	221	0.25	74%	26%	30	11	41
Building 3D (Phase 5)	155	DU	221	0.25	74%	26%	29	10	39
	1,020						189	67	256
Internal Reduction [3]							*-87*	*-28*	*-115*
						Subtotal (less internal) =	102	39	141
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	296,169	GLA							
New Shopping Center (proposed with project)	63,000	GLA							
	359,169	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	680	737	1,417
Internal Reduction [3]							*-28*	*-87*	*-115*
Pass-by [4]	*19%*						*-124*	*-123*	*-247*
						Subtotal (less internal and pass-by) =	528	527	1,055
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	-727	-788	-1,515
Pass-by [4]	*19%*						*138*	*150*	*288*
							-589	-638	-1,227
						GROSS PM PEAK HOUR TRIP GENERATION =	**869**	**804**	**1,673**
						Internal Reduction =	***-115***	***-115***	***-230***
						Pass-By =	***-124***	***-123***	***-247***
						NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)	**630**	**566**	**1,196**
						EXISTING USES NET TRIP GENERATION	**-589**	**-638**	**-1,227**
						TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)	**41**	**-72**	**-31**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	1,020	DU	221				102	39	141
Retail (Shopping Center >150k)	-34,824	GLA	820				-61	-111	-172
							41	-72	-31

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

[4] Based on pass-by % documented in the appendices of the ITE, *Trip Generation Manual* , 11th Edition (2021).

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 1 - Full Buildout	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	3/27/2025

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	359,169	GLA	345	214	131
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	1,020	DU	256	39	217
Hotel				0		
All Other Land Uses[2]				0		
Total				601	253	348

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	601	253	348
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[3]	595	250	345
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	1%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	3%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Project Name:	RTC Master Plan
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	214	214	1.00	131	131
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	39	39	1.00	217	217
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	38		17	0	18	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	4	2	43	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		68	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	17		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	36	0	0		0
Hotel	0	9	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	2	212	214	212	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	38	39	38	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	130	131	130	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	215	217	215	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 1 - Full Buildout	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	3/27/2025

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	359,169	GLA	1417	680	737
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	1,020	DU	256	189	67
Hotel				0		
All Other Land Uses[2]				0		
Total				1673	869	804

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	87	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	28	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,673	869	804
Internal Capture Percentage	14%	13%	14%
External Vehicle-Trips[3]	1,443	754	689
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	4%	12%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	42%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Exhibit E

Project Name:	RTC Master Plan
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	680	680	1.00	737	737
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	189	189	1.00	67	67
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	15		214	29	192	37
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	28	14	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		54	0	0	8	0
Retail	0		0	0	87	0
Restaurant	0	340		0	30	0
Cinema/Entertainment	0	27	0		8	0
Residential	0	68	0	0		0
Hotel	0	14	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	28	652	680	652	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	87	102	189	102	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	87	650	737	650	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	28	39	67	39	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

RTC Master Plan - Scenario 2 (Residential & Office Option) - Phases 1 - 3
Weekday Daily Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Directional Split [2] Exit	Vehicle Trip Generation Enter	Vehicle Trip Generation Exit	Vehicle Trip Generation Total
DAILY									
Master Plan Scenario 2 (Phases 1 - 3)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Building 4IC East (Phase 2)	275	DU	221	2.01	50%	50%	276	277	553
Building 4B (Phase 3)	150	DU	221	2.01	50%	50%	151	151	302
	425						427	428	855
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	385,255	GLA							
New Shopping Center (proposed with project)	27,600	GLA							
	412,855	GLA	820	T = 26.11(X) + 5863.73	50%	50%	8,322	8,321	16,643
Office (Urban/Suburban) [3]	270,100	GFA	710	Ln(T) = 0.87Ln(X) + 3.05	50%	50%	1,377	1,377	2,754
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 26.11(X) + 5863.73	50%	50%	-8,076	-8,075	-16,151
				GROSS WEEKDAY DAILY TRIP GENERATION =			**10,126**	**10,126**	**20,252**
				Internal Reduction =			***0***	***0***	***0***
				Pass-By =			***0***	***0***	***0***
				NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)			**10,126**	**10,126**	**20,252**
				EXISTING USES NET TRIP GENERATION			**-8,076**	**-8,075**	**-16,151**
				TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)			**2,050**	**2,051**	**4,101**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	425	DU	221				427	428	855
Retail (Shopping Center >150k)	18,862	GLA	820				246	246	492
Office (Urban/Suburban) [3]	270,100	GFA	710				1,377	1,377	2,754
							2,050	2,051	4,101

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] There is no daily trip generation rate in ITE for LUC 710 Office in a Dense Multi Use Urban setting. As a conservative assumption, the daily trip generation was based on LU 710 in an Urban/Suburban setting.

RTC Master Plan - Scenario 2 (Residential & Office Option) - Phases 1 - 3
Weekday AM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
AM PEAK HOUR									
Master Plan Scenario 2 (Phases 1 - 3)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Building 4IC East (Phase 2)	275	DU	221	0.25	15%	85%	10	59	69
Building 4B (Phase 3)	150	DU	221	0.25	15%	85%	6	32	38
	425						16	91	107
Internal Reduction [3]							*0*	-3	-3
					Subtotal (less internal) =		16	88	104
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	385,255	GLA							
New Shopping Center (proposed with project)	27,600	GLA							
	412,855	GLA	820	T = 0.59(X) + 133.55	62%	38%	234	143	377
Internal Reduction [3]							-9	-8	*-17*
					Subtotal (less internal) =		225	135	360
Office (Dense Multi-Use Urban)	270,100	GFA	710	0.84	87%	13%	197	30	227
Internal Reduction [3]							*-10*	-8	*-18*
					Subtotal (less internal) =		187	22	209
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 0.59(X) + 133.55	62%	38%	-227	-139	-366
					GROSS AM PEAK HOUR TRIP GENERATION =		**447**	**264**	**711**
					Internal Reduction =		***-19***	***-19***	***-38***
					Pass-By =		***0***	***0***	***0***
					NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)		**428**	**245**	**673**
					EXISTING USES NET TRIP GENERATION		**-227**	**-139**	**-366**
					TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)		**201**	**106**	**307**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	425	DU	221				16	88	104
Retail (Shopping Center >150k)	18,862	GLA	820				-2	-4	-6
Office (Dense Multi-Use Urban)	270,100	GFA	710				187	22	209
							201	106	307

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

RTC Master Plan - Scenario 2 (Residential & Office Option) - Phases 1 - 3
Weekday PM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
PM PEAK HOUR									
Master Plan Scenario 2 (Phases 1 - 3)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Building 4IC East (Phase 2)	275	DU	221	0.25	74%	26%	51	18	69
Building 4B (Phase 3)	150	DU	221	0.25	74%	26%	28	10	38
	425						79	28	107
Internal Reduction [3]							-39	-13	-52
						Subtotal (less internal) =	40	15	55
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	385,255	GLA							
New Shopping Center (proposed with project)	27,600	GLA							
	412,855	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	752	815	1,567
Internal Reduction [3]							-51	-47	-98
Pass-by [4]	19%						-133	-146	-279
						Subtotal (less internal and pass-by) =	568	622	1,190
Office (Dense Multi-Use Urban)	270,100	GFA	710	T = 0.83(X) + 7.46	16%	84%	37	195	232
Internal Reduction [3]							-12	-42	-54
						Subtotal (less internal) =	25	153	178
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	-727	-788	-1,515
Pass-by [4]	19%						138	150	288
							-589	-638	-1,227
						GROSS PM PEAK HOUR TRIP GENERATION =	**868**	**1,038**	**1,906**
						Internal Reduction =	**-102**	**-102**	**-204**
						Pass-By =	**-133**	**-146**	**-279**
						NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)	**633**	**790**	**1,423**
						EXISTING USES NET TRIP GENERATION	**-589**	**-638**	**-1,227**
						TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)	**44**	**152**	**196**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	425	DU	221				40	15	55
Retail (Shopping Center >150k)	18,862	GLA	820				-21	-16	-37
Office (Dense Multi-Use Urban)	270,100	GFA	710				25	153	178
							44	152	196

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

[4] Based on pass-by % documented in the appendices of the ITE, *Trip Generation Manual* , 11th Edition (2021).

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 2 - Ph 1 to 3	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	3/27/2025

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	270,100	GFA	227	197	30
Retail	820	412,855	GLA	377	234	143
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	425	DU	107	16	91
Hotel				0		
All Other Land Uses[2]				0		
Total				711	447	264

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	8		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	711	447	264
Internal Capture Percentage	5%	4%	7%
External Vehicle-Trips[3]	673	428	245
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	5%	27%
Retail	4%	6%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	3%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Exhibit E

Project Name:	RTC Master Plan
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	197	197	1.00	30	30
Retail	1.00	234	234	1.00	143	143
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	16	16	1.00	91	91
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	19	0	0	0
Retail	41		19	0	20	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	18	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		75	0	0	0	0
Retail	8		0	0	0	0
Restaurant	28	19		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	40	0	0		0
Hotel	6	9	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	10	187	197	187	0	0
Retail	9	225	234	225	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	16	16	16	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	8	22	30	22	0	0
Retail	8	135	143	135	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	3	88	91	88	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 2 - Ph 1 to 3	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	3/27/2025

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	270,100	GFA	232	37	195
Retail	820	412,855	GLA	1567	752	815
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	425	DU	107	79	28
Hotel				0		
All Other Land Uses[2]				0		
Total				1906	868	1038

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		39	0	0	3	0
Retail	11		0	0	36	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	12	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,906	868	1,038
Internal Capture Percentage	11%	12%	10%
External Vehicle-Trips[3]	1,702	766	936
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	32%	22%
Retail	7%	6%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	49%	46%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Exhibit E

Project Name:	RTC Master Plan
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	37	37	1.00	195	195
Retail	1.00	752	752	1.00	815	815
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	79	79	1.00	28	28
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		39	8	0	4	0
Retail	16		236	33	212	41
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	12	6	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		60	0	0	3	0
Retail	11		0	0	36	0
Restaurant	11	376		0	13	0
Cinema/Entertainment	2	30	0		3	0
Residential	21	75	0	0		0
Hotel	0	15	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	12	25	37	25	0	0
Retail	51	701	752	701	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	39	40	79	40	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	42	153	195	153	0	0
Retail	47	768	815	768	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	15	28	15	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

RTC Master Plan - Scenario 2 (Residential & Office Option) - Full Buildout (Phases 1 - 5)
Weekday Daily Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
DAILY									
Master Plan Scenario 2 Full Buildout (Phases 1 - 5)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Building 4IC East (Phase 2)	275	DU	221	2.01	50%	50%	276	277	553
Building 4B (Phase 3)	150	DU	221	2.01	50%	50%	151	151	302
Building 3A (Phase 4)	165	DU	221	2.01	50%	50%	166	166	332
Building 3D (Phase 5)	155	DU	221	2.01	50%	50%	156	156	312
	745						749	750	1,499
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	296,169	GLA							
New Shopping Center (proposed with project)	61,600	GLA							
	357,769	GLA	820	T = 26.11(X) + 5863.73	50%	50%	7,603	7,602	15,205
Office (Urban/Suburban) [3]	270,100	GFA	710	Ln(T) = 0.87Ln(X) + 3.05	50%	50%	1,377	1,377	2,754
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 26.11(X) + 5863.73	50%	50%	-8,076	-8,075	-16,151
				GROSS WEEKDAY DAILY TRIP GENERATION =			**9,729**	**9,729**	**19,458**
				Internal Reduction =			***0***	***0***	***0***
				Pass-By =			***0***	***0***	***0***
				NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)			**9,729**	**9,729**	**19,458**
				EXISTING USES NET TRIP GENERATION			**-8,076**	**-8,075**	**-16,151**
				TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)			**1,653**	**1,654**	**3,307**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	745	DU	221				749	750	1,499
Retail (Shopping Center >150k)	-36,224	GLA	820				-473	-473	-946
Office (Urban/Suburban) [3]	270,100	GFA	710				1,377	1,377	2,754
							1,653	1,654	3,307

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] There is no daily trip generation rate in ITE for LUC 710 Office in a Dense Multi Use Urban setting. As a conservative assumption, the daily trip generation was based on LU 710 in an Urban/Suburban setting.

RTC Master Plan - Scenario 2 (Residential & Office Option) - Full Buildout (Phases 1 - 5)
Weekday AM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
AM PEAK HOUR									
Master Plan Scenario 2 Full Buildout (Phases 1 - 5)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Building 4IC East (Phase 2)	275	DU	221	0.25	15%	85%	10	59	69
Building 4B (Phase 3)	150	DU	221	0.25	15%	85%	6	32	38
Building 3A (Phase 4)	165	DU	221	0.25	15%	85%	6	35	41
Building 3D (Phase 5)	155	DU	221	0.25	15%	85%	6	33	39
	745						28	159	187
Internal Reduction [3]							*-1*	*-5*	*-6*
					Subtotal (less internal) =		27	154	181
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	296,169	GLA							
New Shopping Center (proposed with project)	61,600	GLA							
	357,769	GLA	820	T = 0.59(X) + 133.55	62%	38%	214	131	345
Internal Reduction [3]							*-10*	*-9*	*-19*
					Subtotal (less internal) =		204	122	326
Office (Dense Multi-Use Urban)	270,100	GFA	710	0.84	87%	13%	197	30	227
Internal Reduction [3]							*-11*	*-8*	*-19*
					Subtotal (less internal) =		186	22	208
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	T = 0.59(X) + 133.55	62%	38%	-227	-139	-366
					GROSS AM PEAK HOUR TRIP GENERATION =		**439**	**320**	**759**
					Internal Reduction =		***-22***	***-22***	***-44***
					Pass-By =		***0***	***0***	***0***
					NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)		**417**	**298**	**715**
					EXISTING USES NET TRIP GENERATION		**-227**	**-139**	**-366**
					TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)		**190**	**159**	**349**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	745	DU	221				27	154	181
Retail (Shopping Center >150k)	-36,224	GLA	820				-23	-17	-40
Office (Dense Multi-Use Urban)	270,100	GFA	710				186	22	208
							190	159	349

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

RTC Master Plan - Scenario 2 (Residential & Office Option) - Full Buildout (Phases 1 - 5)
Weekday PM Peak Hour Trip Generation Summary

Land Use	Size	Units [1]	ITE LUC [2]	Trip Rate / Equation [2]	Directional Split [2] Enter	Exit	Vehicle Trip Generation Enter	Exit	Total
PM PEAK HOUR									
Master Plan Scenario 2 Full Buildout (Phases 1 - 5)									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)									
Building 4IC East (Phase 2)	275	DU	221	0.25	74%	26%	51	18	69
Building 4B (Phase 3)	150	DU	221	0.25	74%	26%	28	10	38
Building 3A (Phase 4)	165	DU	221	0.25	74%	26%	30	11	41
Building 3D (Phase 5)	155	DU	221	0.25	74%	26%	29	10	39
	745						138	49	187
Internal Reduction [3]							*-67*	*-23*	*-90*
						Subtotal (less internal) =	71	26	97
Retail (Shopping Center >150k)									
Existing Shopping Center (to remain with project)	296,169	GLA							
New Shopping Center (proposed with project)	61,600	GLA							
	357,769	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	678	735	1,413
Internal Reduction [3]							*-60*	*-74*	*-134*
Pass-by [4]	*19%*						*-117*	*-126*	*-243*
						Subtotal (less internal and pass-by) =	501	535	1,036
Office (Dense Multi-Use Urban)	270,100	GFA	710	T = 0.83(X) + 7.46	16%	84%	37	195	232
Internal Reduction [3]							*-13*	*-43*	*-56*
						Subtotal (less internal) =	24	152	176
Less Existing Building Area									
Retail (Shopping Center >150k)	393,993	GLA	820	Ln(T) = 0.72Ln(X) + 3.02	48%	52%	-727	-788	-1,515
Pass-by [4]	*19%*						*138*	*150*	*288*
							-589	-638	-1,227
						GROSS PM PEAK HOUR TRIP GENERATION =	**853**	**979**	**1,832**
						Internal Reduction =	***-140***	***-140***	***-280***
						Pass-By =	***-117***	***-126***	***-243***
						NET TRIP GENERATION (NOT INCLUDING EXISTING USE CREDIT)	**596**	**713**	**1,309**
						EXISTING USES NET TRIP GENERATION	**-589**	**-638**	**-1,227**
						TOTAL NET NEW TRIP GENERATION (PROPOSED LESS EXISTING)	**7**	**75**	**82**
NET CHANGE BY LAND USE									
Multifamily Housing (Mid-Rise) Close to Rail (Dense Multi-Use Urban)	745	DU	221				71	26	97
Retail (Shopping Center >150k)	-36,224	GLA	820				-88	-103	-191
Office (Dense Multi-Use Urban)	270,100	GFA	710				24	152	176
							7	75	82

[1] DU = Dwelling Units, GLA = Gross Leasable Area.

[2] Based on Institute of Transportation Engineers (ITE), *Trip Generation Manual* , 11th Edition (2021).

[3] Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, September 2017

[4] Based on pass-by % documented in the appendices of the ITE, *Trip Generation Manual* , 11th Edition (2021).

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 2 - Full Buildout	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	3/27/2025

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	270,100	GFA	227	197	30
Retail	820	357,769	GLA	345	214	131
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	745	DU	187	28	159
Hotel				0		
All Other Land Uses[2]				0		
Total				759	439	320

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	8		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	2	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	759	439	320
Internal Capture Percentage	6%	5%	7%
External Vehicle-Trips[3]	715	417	298
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	6%	27%
Retail	5%	7%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	4%	3%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Exhibit E

Project Name:	RTC Master Plan
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	197	197	1.00	30	30
Retail	1.00	214	214	1.00	131	131
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	28	28	1.00	159	159
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	19	0	0	0
Retail	38		17	0	18	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	2	32	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		68	0	0	0	0
Retail	8		0	0	1	0
Restaurant	28	17		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	36	0	0		0
Hotel	6	9	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	11	186	197	186	0	0
Retail	10	204	214	204	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	27	28	27	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	8	22	30	22	0	0
Retail	9	122	131	122	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	154	159	154	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	RTC Master Plan	**Organization:**	TENW
Project Location:	Redmond, WA	**Performed By:**	CAW
Scenario Description:	Scenario 2 - Full Buildout	**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	3/27/2025

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	270,100	GFA	232	37	195
Retail	820	357,769	GLA	1413	678	735
Restaurant				0		
Cinema/Entertainment				0		
Residential	221	745	DU	187	138	49
Hotel				0		
All Other Land Uses[2]				0		
Total				1832	853	979

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		39	0	0	4	0
Retail	11		0	0	63	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	21	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,832	853	979
Internal Capture Percentage	15%	16%	14%
External Vehicle-Trips[3]	1,552	713	839
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	35%	22%
Retail	9%	10%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	49%	47%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas Transportation Institute

Exhibit E

Project Name:	RTC Master Plan
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	37	37	1.00	195	195
Retail	1.00	678	678	1.00	735	735
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	138	138	1.00	49	49
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		39	8	0	4	0
Retail	15		213	29	191	37
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	21	10	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		54	0	0	6	0
Retail	11		0	0	63	0
Restaurant	11	339		0	22	0
Cinema/Entertainment	2	27	0		6	0
Residential	21	68	0	0		0
Hotel	0	14	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	13	24	37	24	0	0
Retail	60	618	678	618	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	67	71	138	71	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	43	152	195	152	0	0
Retail	74	661	735	661	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	23	26	49	26	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Appendix H

Transportation Concurrency Application

CITY OF REDMOND TRANSPORTATION CONCURRENCY APPLICATION

This application provides the City of Redmond with the information needed to issue a certificate of concurrency for a development. Please complete the entire form and return it to the Redmond Engineering Services Division. After agreement is reached on the mobility unit demand for a development based on the land use type, size of development and table on the back of this application, the City will, if necessary, determine if enough mobility unit supply is available to issue a certificate of concurrency. If determining the mobility unit demand for a development requires an independent calculation a fee for the review will be required, payable at the City Hall Permit Center.

1. Applicant name and address: Mitch Ptacek, GGLO
   1301 1st Ave, #301
   Seattle, WA 98101
2. Property location:
   a. Property address: 7330, 7345, 7530 164th Ave NE
   b. Development name: RTC Master Plan (Scenario 2 Residential & Office Option, Phases 1 to 3)
   c. Assessor's Parcel Number(s): 7202410010, 7202410020, 7202410030, 7202410050
3. Type of development permit to be requested: Master Plan Development

	Land Use Type (ITE Land Use Code)	Development Units	Mobility Unit Rate (see table on back)	Mobility Unit Demand	Notes
Proposed	Multi-Family (LUC 221) Retail 300,000+ (LUC 820) Office 200,000-299,999 SF (LUC 710)	425 DU 412,855 SF 270,100 SF	1.39 5.34 4.94	590.75 2204.65 1334.29	Downtown
			Total Proposed:	4139.69	
Existing	Retail 300,000+ (LUC 820)	393,993 SF	5.34	2103.92	Downtown
			Total Existing:	2103.92	
Net New Mobility Unit Demand (Total Proposed minus Total Existing)				2035.77	

Signature of Applicant: Mitch Ptacek Digitally signed by Mitch Ptacek DN: E=MPtacek@GGLO.com, CN=Mitch Ptacek, OU=Architecture, OU=Professional Staff, OU=GGLO Users, DC=corp, DC=ggllo, DC=com Reason: I have reviewed this document Date: 2025.03.21 15:34:14-07'00' Date: 03.21.2025

For Official Use Only:

Mobility Unit Demand calculation reviewed: _____ _____
Initials Date

Concurrency certificate required: □ Yes □ No Mobility Units available: □ Yes □ No

Application number:_____

Exhibit E

TABLE 1. Development Mobility Unit Calculator

Land Uses			ITE Land USE Code	Standard of Measure	Mobility Units/Land Use Unit		
					Downtown Urban Center	Overlake Urban Center	Rest of City
Residential		Single Family	210	dwelling	1.98	2.05	2.42
		Multiple Family	220	dwelling	1.39	1.44	1.7
		Residential Suites	N/A	residential suite	0.85	0.88	1.04
		Retirement Community	251	dwelling	0.64	0.66	0.78
		Nursing Home	620	bed	0.52	0.54	0.63
		Congregate Care/Asst Living	253	dwelling	0.4	0.41	0.49
		Hotel/Motel	310	room	1.86	1.93	2.28
Commercial	Services	Bank/Savings & Loan	912	sq ft/GFA	23.38	24.18	28.61
		Day Care	565	sq ft/GFA	17.81	18.42	21.8
		Library	590	sq ft/GFA	10.53	10.9	12.89
		Post Office	732	sq ft/GFA	16.19	16.75	19.82
		Service Station	944	fuel position	10.67	11.04	13.07
		Service Station/Minimart	945	fuel position	7.8	8.07	9.54
		Movie Theater	444,445	seat	0.11	0.12	0.14
		Carwash	947	stall	6.93	7.17	8.48
		Health Club/Racquet Club	492,493	sq ft/GFA	6.85	7.08	8.38
	Institutional	Elementary School	520	student	0.16	0.17	0.2
		High School	530	student	0.16	0.17	0.2
		Church/House of Worship	560	sq ft/GFA	1.06	1.09	1.3
		Hospital	610	sq ft/GFA	1.52	1.57	1.86
	Rest-aurant	Restaurant	931	sq ft/GFA	11.53	11.93	14.11
		Fast Food Restaurant	934	sq ft/GFA	31.41	32.49	38.45
	Retail Shopping Center	up to 99,999	820	sq ft/GLA	6.34	6.56	7.76
		100,000-199,999	820	sq ft/GLA	6.05	6.26	7.41
		200,000-299,999	820	sq ft/GLA	5.54	5.73	6.78
		300,000 and over	820	sq ft/GLA	5.34	5.52	6.53
		Supermarket	850	sq ft/GFA	13.68	14.15	16.74
		Convenience Market	851	sq ft/GFA	45.37	46.94	55.54
		Free Standing Discount Store	813, 815, 861, 863, 864	sq ft/GFA	4.51	4.66	5.52
		Miscellaneous Retail	820	sq ft/GFA	5.35	5.54	6.55
		Furniture Store	890	sq ft/GFA	0.52	0.54	0.64
		Car Sales - New/Used	841	sq ft/GFA	4.03	4.17	4.94
	Administrative Office	up to 99,999	710,715, 750	sq ft/GFA	6.58	6.81	8.06
		100,000-199,999	710,715, 750	sq ft/GFA	5.66	5.85	6.92
		200,000-299,999	710,715, 750	sq ft/GFA	4.94	5.11	6.04
		300,000 and over	710,715, 750	sq ft/GFA	4.63	4.79	5.67
		Medical Office/Clinic	720	sq ft/GFA	6.76	6.99	8.28
	Industrial	Light Industry/Manufacturing	110	sq ft/GFA	3.09	3.2	3.78
		Industrial Park	130	sq ft/GFA	2.71	2.8	3.31
		Warehousing/Storage	150	sq ft/GFA	1.02	1.05	1.25
		Mini Warehouse	151	sq ft/GFA	0.61	0.63	0.74

For uses with standard of measure in sq ft, mobility units are given per 1000 sq ft

Appendix I

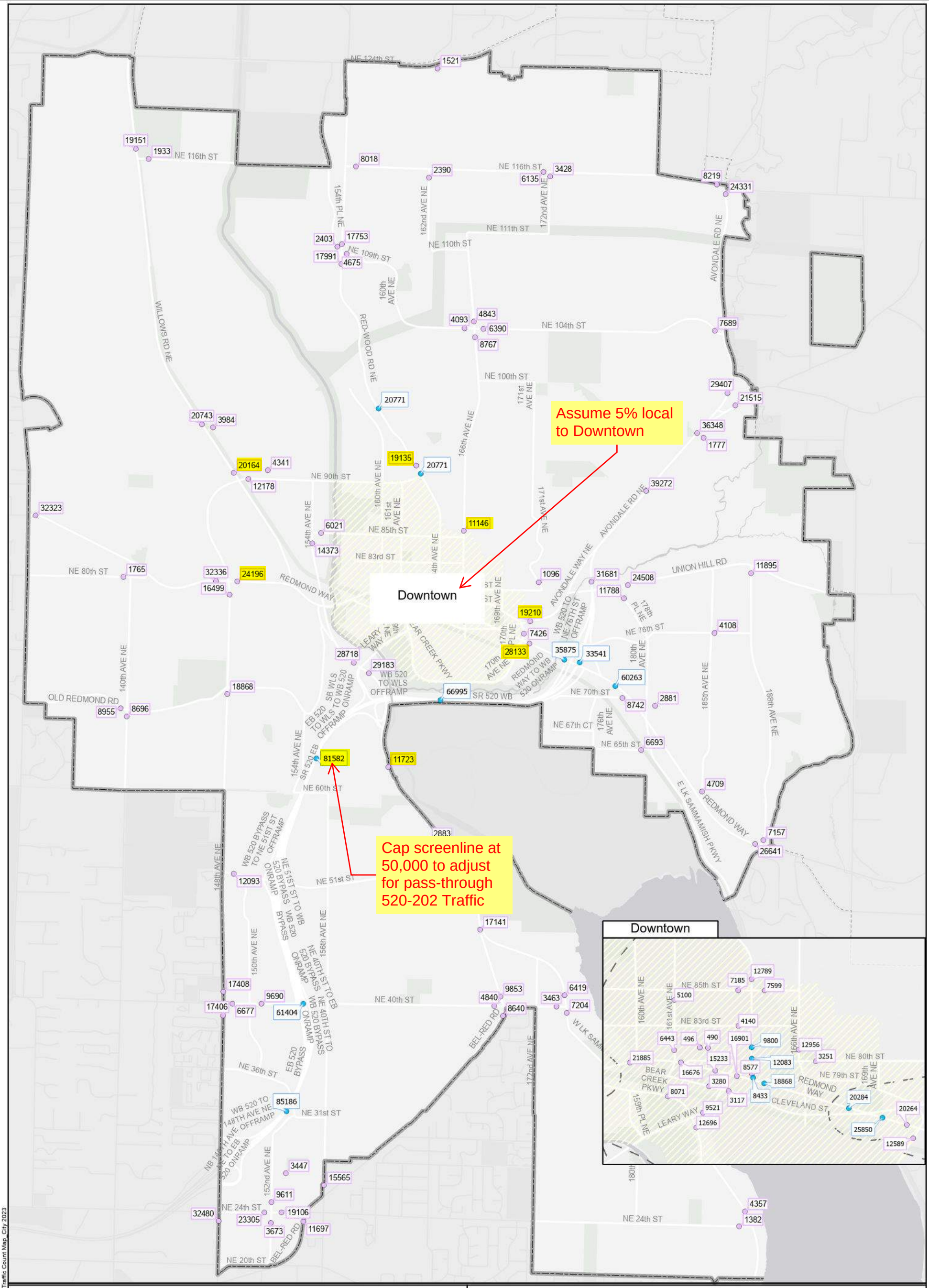
Trip Distribution Calculations

RTC Master Plan

Trip Distribution based on COR AWDT Count Map

Street		Screenlines 2022 AWDT Counts	Screenline %	Rounded for Distribution
Redmond Way (west)		24,196	13%	15%
SR 520 (west)		*50,000*	27%	25%
W Lk Samm Pkwy (south)		11,723	6%	5%
Avondale Way NE (north)		19,210	10%	10%
Redmond Way (east)		28,133	15%	15%
166th Ave NE (north)		11,146	6%	5%
Willows Rd (north)		20,164	11%	10%
164th Ave NE (north)		19,135	10%	10%
Local Traffic		*Estimated*	0%	5%
	Totals	183,707	100%	100%

Exhibit E


Assume 5% local to Downtown
Cap screenline at 50,000 to adjust for pass-through 520-202 Traffic
Downtown
NE 124th ST
NE 116th ST
NE 111th ST
NE 110th ST
NE 109th ST
NE 104th ST
NE 100th ST
NE 90th ST
NE 85th ST
NE 83rd ST
NE 80th ST
NE 76th ST
NE 70th ST
NE 67th CT
NE 65th ST
NE 60th ST
NE 51st ST
NE 40th ST
NE 36th ST
NE 31st ST
NE 24th ST
NE 20th ST
SR 520 WB
REDMOND WAY
AVONDALE RD NE
UNION HILL RD
OLD REDMOND RD
WILLOWS RD NE
RED-WOOD RD NE
LEARY WAY NE
BEAR CREEK PKWY
REDMOND WAY TO WB 520 ONRAMP
WB 520 TO WLS OFFRAMP
SB WLS TO WB 520 ONRAMP
EB 520 TO WLS TO WB 520 OFFRAMP
WB 520 TO NE 51ST ST OFFRAMP
NE 51ST ST TO WB 520 BYPASS ONRAMP
NE 40TH ST TO EB 520 BYPASS ONRAMP
WB 520 TO 148TH AVE NE OFFRAMP
NB 148TH AVE NE TO EB 520 ONRAMP
WB 520 TO NE 76TH ST OFFRAMP
E LK SAMMAMISH PKWY
W LK SAMM
BEL-RED RD
154th PL NE
162nd AVE NE
172nd AVE NE
160th AVE NE
161st AVE NE
171st AVE NE
166th AVE NE
154th AVE NE
4th AVE NE
169th PL NE
170th PL NE
170th AVE NE
178th PL NE
180th AVE NE
185th AVE NE
188th AVE NE
176th AVE NE
140th AVE NE
148th AVE NE
150th AVE NE
152nd AVE NE
156th AVE NE
159th PL NE
169th AVE NE
SR 520 EB
1521
19151
1933
8018
2390
3428
6135
8219
24331
2403
17753
17991
4675
4093
4843
6390
8767
7689
20771
20743
3984
29407
21515
36348
1777
20164
4341
12178
19135
39272
32323
6021
11146
14373
1765
32336
24196
16499
1096
31681
24508
11788
11895
19210
7426
4108
28718
28133
35875
33541
29183
18868
60263
66995
8955
8696
8742
2881
81582
11723
6693
4709
7157
26641
2883
12093
17141
17408
9690
17406
6677
61404
4840
9853
8640
6419
3463
7204
3447
15565
9611
32480
19106
23305
3673
11697
4357
1382
12789
7185
7599
5100
4140
6443
496
490
16901
9800
12956
3251
21885
15233
12083
8577
16676
3280
18868
8071
3117
8433
9521
12696
20284
20264
25850
12589
2022 Traffic Count (AWDT)
City of Redmond, Washington
Redmond
WASHINGTON
0
0.4
0.8
Miles
N
City Volume Count
WSDOT Volume Count
City Center
City Limit
Neighborhood
Disclaimer: This map is created and maintained by GIS Services Group,Technology and Information Services, City of Redmond, Washington, for reference purposes only.
The City makes no guarantee as to the accuracy of the features shown on this map.
G:\GIS\Data\Department\Planning\Transportation\TrafficCounts\Map\Traffic Count Map_City 2023

15670 NE 85th Street
Redmond, WA

City of Redmond

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-442
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Planning and Community Development	Carol Helland	425-556-2107

DEPARTMENT STAFF:

Planning and Community Development	Seraphie Allen	Deputy Director
Planning and Community Development	Michael Hintze	Manager, Transportation Planning & Engineering
Planning and Community Development	Caroline Chapman	Senior Planner

TITLE:
Urban Centers Parking Management Existing Conditions Report

OVERVIEW STATEMENT:
Redmond 2050 directs much of Redmond's anticipated growth into Marymoor Village, Overlake Village, and the Downtown urban centers. With the addition of higher density housing and construction of light rail stations, new parking management strategies will be needed to make efficient use of public parking resources.

The Urban Centers Parking Management project has two phases. At this Committee of the Whole meeting we will be discussing the work completed in Phase 1 and how this data is informing Phase 2.

Phase 1-Document Existing Conditions: create an Existing Conditions Report of public and private parking resources in the urban centers. Include inventory, utilization rates, and duration of parking.

Phase 2- Implement Parking Management Strategies: Implement relevant parking management strategies that enhance access for businesses, residents, and commuters. Management will optimize access in and around the urban centers and support citywide goals of multimodal access as Redmond urbanizes.

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  Redmond 2050 Comprehensive Plan
    - TR-34 Implement comprehensive parking management programs that at a minimum address underutilized parking, shared parking, transit access parking, wayfinding, and localized parking imbalances. Manage parking demand using strategies like time limits and pricing.

  Environmental Sustainability Action Plan (ESAP)
    - **T1:** Increase the equitable use of non-SOV modes of transportation, such as biking, walking, and public transit
    - **T1.8:** Increase new mobility options
    - **T1.11:** Comprehensive transportation outreach and education
- **Required:**
  N/A
- **Council Request:**
  N/A
- **Other Key Facts:**
  N/A

OUTCOMES:
Council to provide guidance on what information they would like to discuss during the Study Session.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  N/A
- **Outreach Methods and Results:**
  N/A
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:
$176,000

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
0000310 - Mobility of People and Goods

Budget Priority:

Vibrant and Connected

Other budget impacts or additional costs: ☐ **Yes** ☐ **No** ☒ **N/A**
If yes, explain:
Budget impacts will be explored in Phase 2

Funding source(s):
General Fund

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
3/4/2025	Committee of the Whole - Planning and Public Works	Receive Information

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
9/2/2025	Committee of the Whole - Planning and Public Works	Provide Direction
9/9/2025	Study Session	Provide Direction

Time Constraints:
N/A

ANTICIPATED RESULT IF NOT APPROVED:
Delayed management of on- and off-street parking resources in the urban centers.

ATTACHMENTS:
A. Redmond Urban Centers Parking Study

Fehr & Peers

Redmond Urban Centers Parking Study

Prepared for:
The City of Redmond

Submitted on:
June 30, 2025

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1. Introduction

This Existing Conditions Parking Report summarizes the baseline parking inventory and demand observed in the three urban centers of the City of Redmond: Downtown, Overlake Village, and Marymoor Village. This report will serve as the foundation for updating the City's parking management strategies and policies, aligning them with the recently adopted comprehensive plan, Redmond 2050 Plan[1].

This report is a first step to establish baseline parking conditions within the three urban centers in the city: Downtown, Overlake Village, and Marymoor Village. In particular, the city aims to understand parking supply within a ½ mile radius of transit stations located in these urban centers. These areas were selected because in addition to the existing transit stations, they will each have transit stations for the upcoming 2 Line extension serviced by Sound Transit. Since Washington state has removed parking mandates within ½ mile of transit stations, cities and neighborhoods need to consider parking needs as new transit infrastructure is introduced. Figure 1 shows the location of these three urban centers within the city.

1.1 Contextual Setting

Redmond is the eighth largest city in King County with a population of 80,280 as of 2023. It serves as both a "bedroom community" for commuters traveling to Seattle, and as a major employment hub owing to the presence of Microsoft's headquarters in Overlake Village. Redmond's population increased 9.6% between early 2020 and 2023, much more than the 1.6% increase experienced by all cities in Washington in the same period[2].

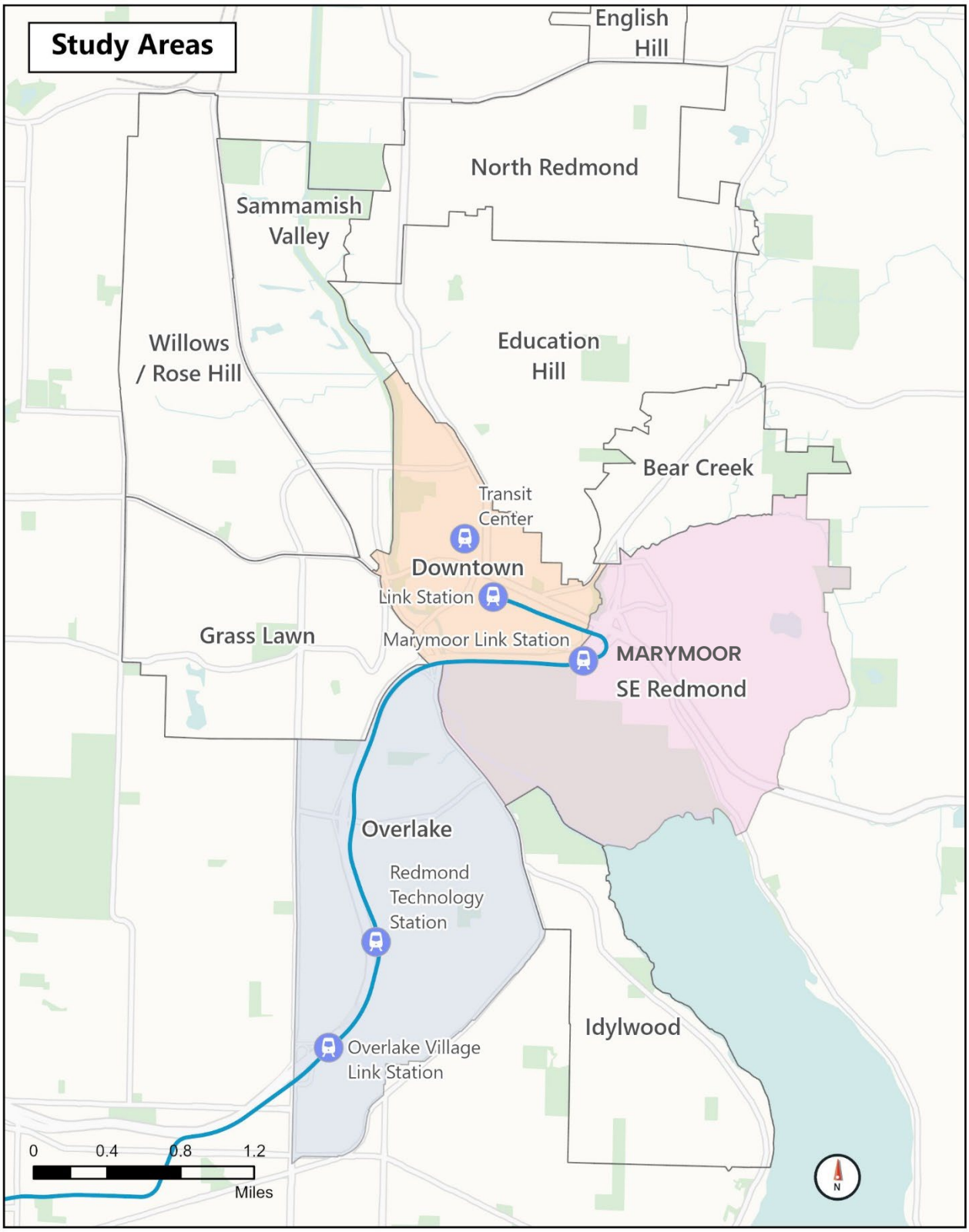
Referring to Figure 1, **Downtown Redmond** is in the heart of the city, bound on the west by the Sammamish River and on the south by SR 520. **Marymoor Village**, as part of SE Redmond, lies adjacent to it in the south, primarily covered by Marymoor Park with a small population presence in the Northeast corner. Finally, **Overlake Village** is further south, in proximity to the City of Bellevue, University of Washington, and Seattle.

1.1.1 Population and Jobs

Downtown and Overlake Village have higher population densities than Marymoor Village, which has a much smaller population owing to the presence of Marymoor Park. Out of the three, Overlake Village is the largest neighborhood with 7,000 residents and more than 45,000 jobs[3], followed by Downtown with 6,000 residents and 10,000 jobs[4].

[1] Redmond 2050 Comprehensive Plan, November 2024.
[2] Census, Population Division
[3] https://www.redmond.gov/DocumentCenter/View/1453/Overlake-Neighborhood-Summary-PDF
[4] https://www.redmond.gov/DocumentCenter/View/1348/Downtown-Neighborhood-Summary-PDF

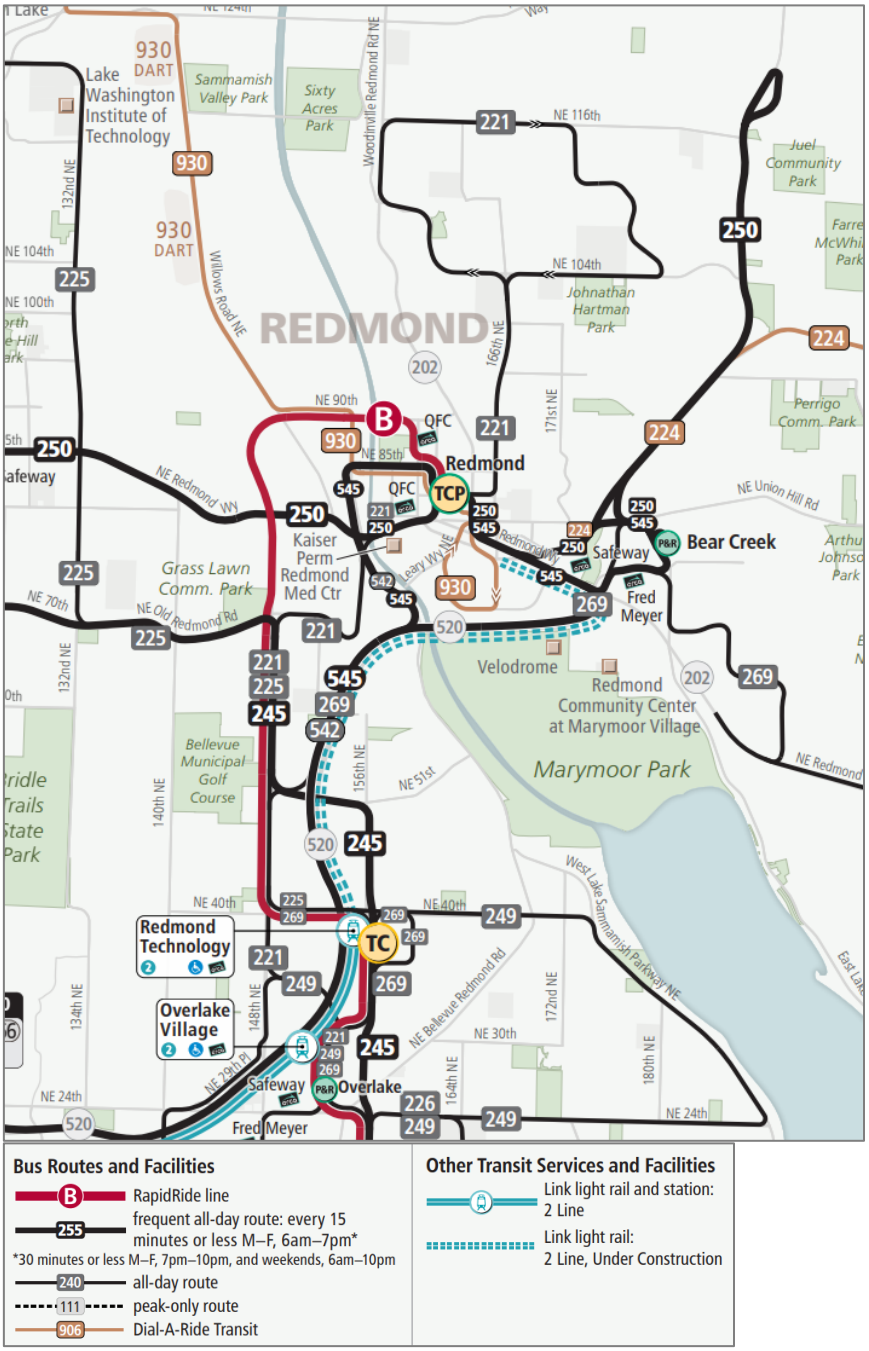
Figure 1: Neighborhoods of Redmond, Washington



1.1.2 Travel Behavior

The 2023 American Community Survey informs that the primary commuting travel choice of Redmond residents, employees, and visitors is Single Occupancy Vehicle (SOV), with 53% trips. Considering the dominance of the tech industry in employment, the high percentage of work-from-home (WFH) as a "commute" option at 25% is expected. Transit usage follows next at 10%. However, these figures likely do not reflect the ebb and flow of traffic and parking in the city throughout the day. This is because Redmond has various office spaces, especially in Overlake Village and Downtown, attracting commuters from outside the city who are not captured in travel surveys.

Figure 2: Current and Future Transit Options for Redmond (Source: King County Metro)



Redmond does not have its own city bus service and is instead part of the King Country Metro service district. Compared to the rest of the district, there are only a few bus lines and one express route servicing the city. As of 2024, there is no light rail service. However, Sound Transit's Link 2 Line extension will connect downtown Seattle with downtown Redmond once the construction of the entire line is expected to be completed in 2025, providing frequent mass transit service between the two economic hubs. Figure 2 shows the transit options available in the study areas.

2. Data Collection

2.1 Method

2.1.1 Survey Approach and Methods

Comprehensive parking surveys were conducted during weekdays in the last week of October 2024. Based on initial data analysis, select locations were identified and surveyed as part of a second visit in the second week of February 2025. In sum, the surveys comprised the following activities:

- **Parking inventory**: This is the total amount of parking available through on-street spaces and in off-street facilities. Conducting counts at off-street facilities is straightforward as there's clear delineation between adjacent spots. For on-street sites, if there are no markings then the rule of thumb is to count one space for every 20 feet of curb length in the parking zones. Furthermore, this process also counted the distribution of types of parking spaces, such as timed spaces, loading zones, ADA spaces etc.
- **Occupancy**: After conducting the inventory, the survey team visited the locations at fixed intervals to count the number of occupied spaces. For on-street spaces, the number of occupied spaces was captured once every hour from 9 am to 8 pm between Tuesday and Thursday. For off-street locations, occupancy levels were captured once every two hours from 9 am to 7 pm on the same days.
  For private off-street facilities with access control (apartment complexes, office buildings etc.), permission was requested from the building managers to gain access.
- **Turnover rate**: For each on-street parking space, the turnover rate is the number of unique vehicles that occupied that space within the survey period. The turnover rate is a parking efficiency metric to understand how many vehicles a single parking space was able to serve during the survey period. For example, a turnover rate of three would indicate that three unique vehicles parked at that location during the observed time period. Thus, the turnover rate was calculated for this study using a combination of video and manual observation of vehicles parked.

2.1.2 Limitations of the Survey

1. **Length of parking space**: As mentioned earlier, a length of 20 feet is assumed to be one parking spot for on-street parking inventory. Because of this, occupancy can be more than 100% if there are smaller cars parked. In such cases, the occupancy is shown as 100% to avoid confusion for the reader.
2. **Inaccessible facilities**: Some of the off-street locations identified for the survey were inaccessible as they were under construction or going through maintenance. For some of the private off-street facilities, the survey team was unable to obtain permission to enter and conduct the surveys. These have been identified in the parking maps.
3. **Survey time**: The survey was conducted between 9 am and 8 pm and occupancy levels outside of those hours are unavailable.

2.2 Glossary of Terms

1. **Average occupancy**: Occupancy of parking spaces in this document is reported separately for on- and off-street spaces in each of the three areas. This is different from taking the average of, say, each off-street facility's occupancy to create the overall average.
2. **Half-mile radius**: A geographic radius of ½ mile is considered a reasonable walking distance from transit stations[5]. This radius was used as a parameter to identify off-street parking facilities within ½ mile of the upcoming light rail stations in the study areas, to be included as part of the surveys. Half mile can also represent about a 10-minute walk, which is consistent with the City of Redmond's goals around being a '10-minute city'.
3. **Land use and zoning**: This refers to the designation of use for a specific parcel of land. Zoning code describes the type of development which can occur on a parcel (e.g., residential, commercial, etc.). The code also specifies a variety of restrictions for development such as design of buildings, height, parking requirements, open space requirements, etc.
4. **Off-street parking facilities**: There are two types of off-street facilities — surface lots and structures. As the names imply, surface lots (or "lots") are at ground level only while structures can be multi-floor garages or underground facilities.
5. **On-street parking space:** These spaces are typically along public streets and serve a variety of users. For this survey, on-street parking spaces are categorized as follows:
    a. Unrestricted parking: There is typically no time or access restrictions to these spaces
    b. Restricted - 1 hour: These spaces are restricted to a maximum of one hour of parking
    c. Restricted - 2 hours: These spaces are restricted to a maximum of two hours of parking
    d. ADA: These spaces are restricted to vehicles displaying the ADA sign or license plate
    e. Loading zone: These spaces are restricted to vehicle loading/unloading purposes.
    f. 15-min loading zone: These spaces are restricted to 15-minutes loading purposes such as deliveries.
    g. 30-min loading zone: Similar to above, these spaces are limited to 30-minutes loading
    h. Business only – These spaces could be temporarily designated for exclusive use for an adjacent business.
    i. Motorcycle only: these spaces are designated for parking for motorcycles or other motorized two-wheelers.
    j. Future resident space: These spaces are temporarily designated for convenient parking for potential new residents touring multifamily residential use.
6. **Public and Private off-street facilities**: In this document, "public" and "private" in the context of parking refers specifically to the ownership type of the surface lot or structure. It does not categorically give any indication about who can or cannot access that space. For example, a parking lot shared by a commercial block could be owned by the property owner but would be accessible to patrons of businesses located in that block.
7. **85% parking threshold**: This level of occupancy in a parking zone is an industry-wide standard for optimum occupancy to balance parking demand and supply. At this level of occupancy, the supply of parking is efficiently used and at the same time, there is a minimal shortage of parking[6].

[5] Insert citation (Human Transit mentions a paper)
[6] The High Cost of Free Parking, Donald Shoup, 2011

3. Downtown Redmond Parking Data

3.1 Downtown Redmond

Downtown Redmond is one of the two urban centers in the city. The extents of the Downtown area are defined by State Route (SR) 520 on the south, the Sammamish River on the west, and the neighborhood of Education Hill in the northeast. Redmond Way is a major arterial that passes through the area. The under-construction 2 Line light rail extension runs parallel to this arterial and terminates in Downtown.

The city has divided the neighborhood into zones, of which the key zones relevant to the study are *Downtown Core, Downtown Edge, Town Center*, and *Multi-Family*. The northernmost part of Downtown is mostly residential, while the remaining area is populated with a mix of multi-family housing, commercial, and office spaces. There are more than 4000 multi-family units and around 100 single-family units. Figure 3 shows land use and zones in the area.

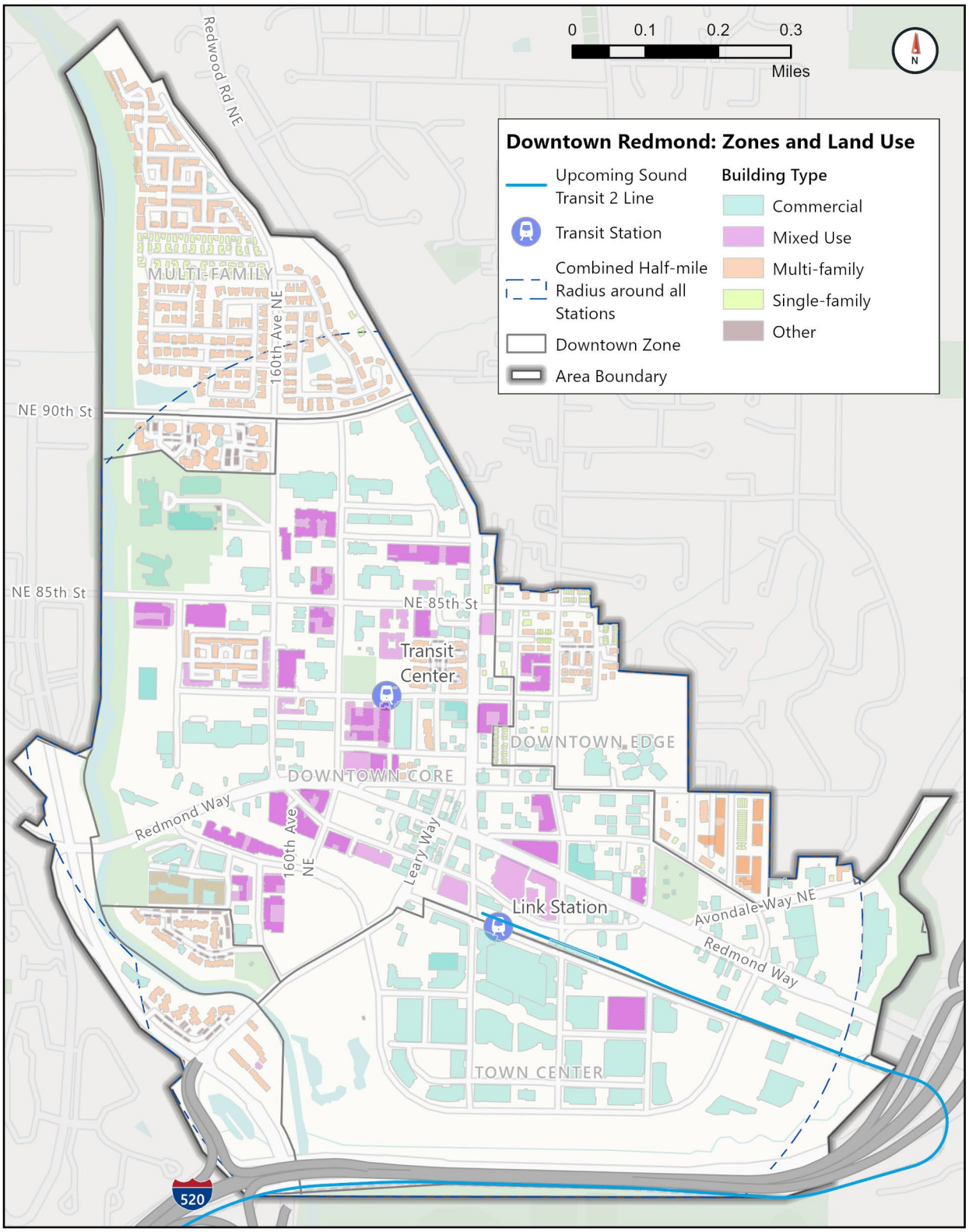
A few major destinations in the area include the Bear Creek Village shopping mall in the southeast and the Bella Bottega shopping center in the north, both with substantial parking. The area also contains various public buildings like the city hall, library, and an elementary school. The remainder of the area is taken up by various smaller businesses, shopping areas, and various hotels, a reflection of Downtown's central location in the city.

The Downtown area has a total of 12,559 spaces for parking that are distributed between on-street spaces and off-street facilities. Figure 4 shows the distribution of both types of parking spaces in the area. There is a mix of on-street and off-street parking spaces throughout the area, except in the northern multi-family zone which does not have parking. Note that this does not include parking for single-family homes like garages and driveways.

Table 1: Total Parking Inventory — Downtown

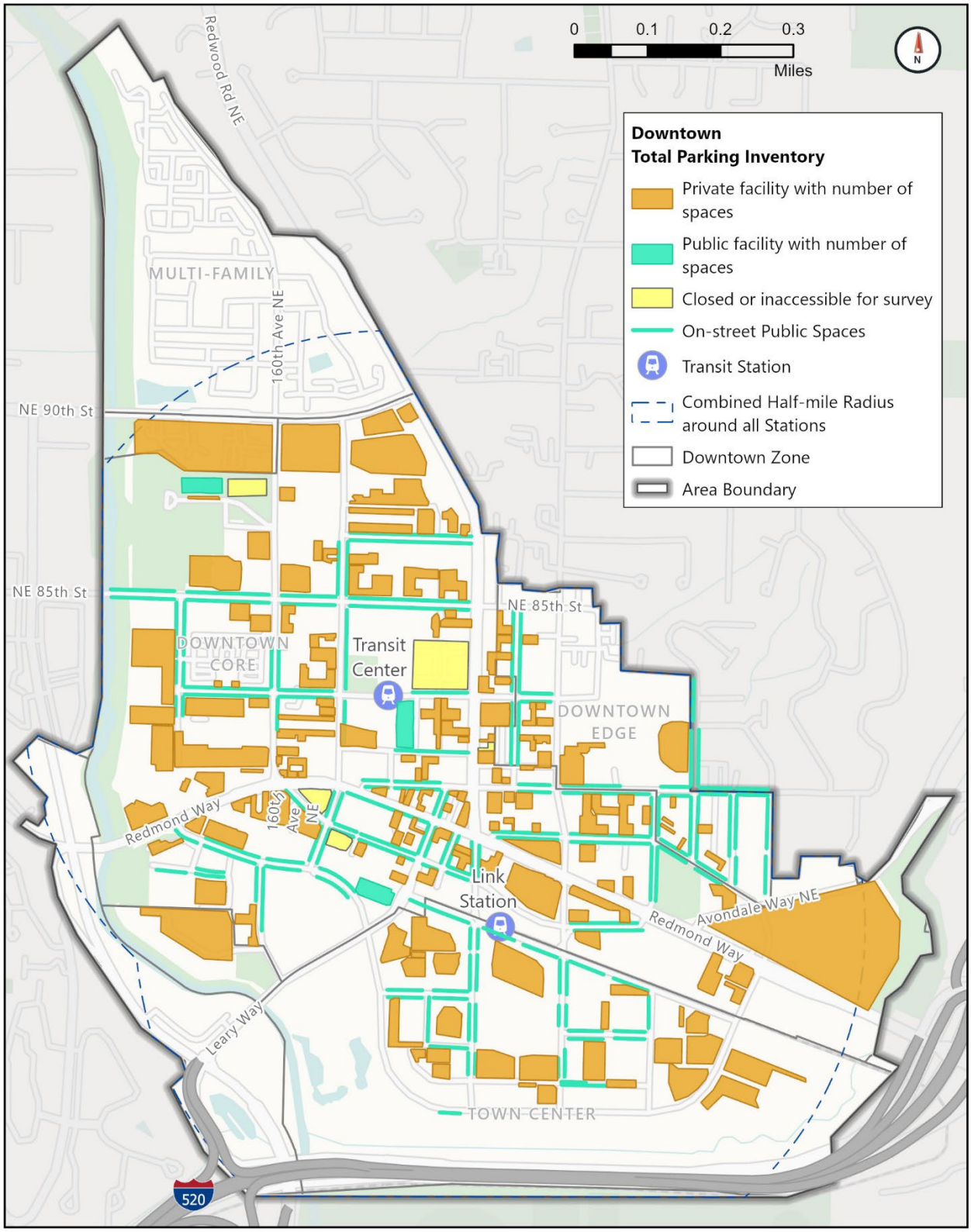
Parking type	No. of Locations	No. of Parking Spots	Percent of Overall Parking Supply
On-street	148	1,130	9%
Off-street	164	11,429	91%
Public	*4*	*885*	7%
Private	*160*	*10,544*	84%

Figure 3: Downtown Redmond — Zones and Land Use



3.2 Overall Downtown Parking Inventory

Figure 4: Total Parking Inventory — Downtown



3.3 Downtown On-street Parking

3.3.1 On-street Inventory

There are 1,130 on-street spaces in Downtown. On the following page, Figure 5 shows the distribution of on-street spaces. A majority are present in the Downtown Core, which also happens to be the largest sub-area. Other on-street spaces are present in the Downtown Edge and Town Center zones.

Table 2 disaggregates the inventory by access type. More than half of the spaces are restricted for a maximum of 2 hours of continuous usage. On the other hand, more than a third of spaces are unrestricted. The remaining 9% or roughly 90 spaces are categorized mostly as loading zones or business use. Only nine spaces in the entire area are ADA-only spaces.

Table 2: On-street Parking Inventory by Type – Downtown

Parking space type	No. of Spaces	Percent of Total
Unrestricted parking	**410**	**36.3%**
Time Limited	**625**	**55.3%**
Restricted - 1 hour	*2*	*0.2%*
Restricted - 2 hour	*623*	*55.1%*
Loading Zones	**55**	**4.9%**
Loading zone	*38*	*3.4%*
15-min loading zone	*16*	*1.4%*
30-min loading zone	*1*	*0.1%*
Other	**34**	**3.0%**
ADA	*9*	*0.8%*
Business only	*22*	*1.9%*
Motorcycle only	*1*	*0.1%*
Future resident space	*2*	*0.2%*
Total spaces	**1130**	**100.0%**

Figure 5: On-street Parking Inventory – Downtown

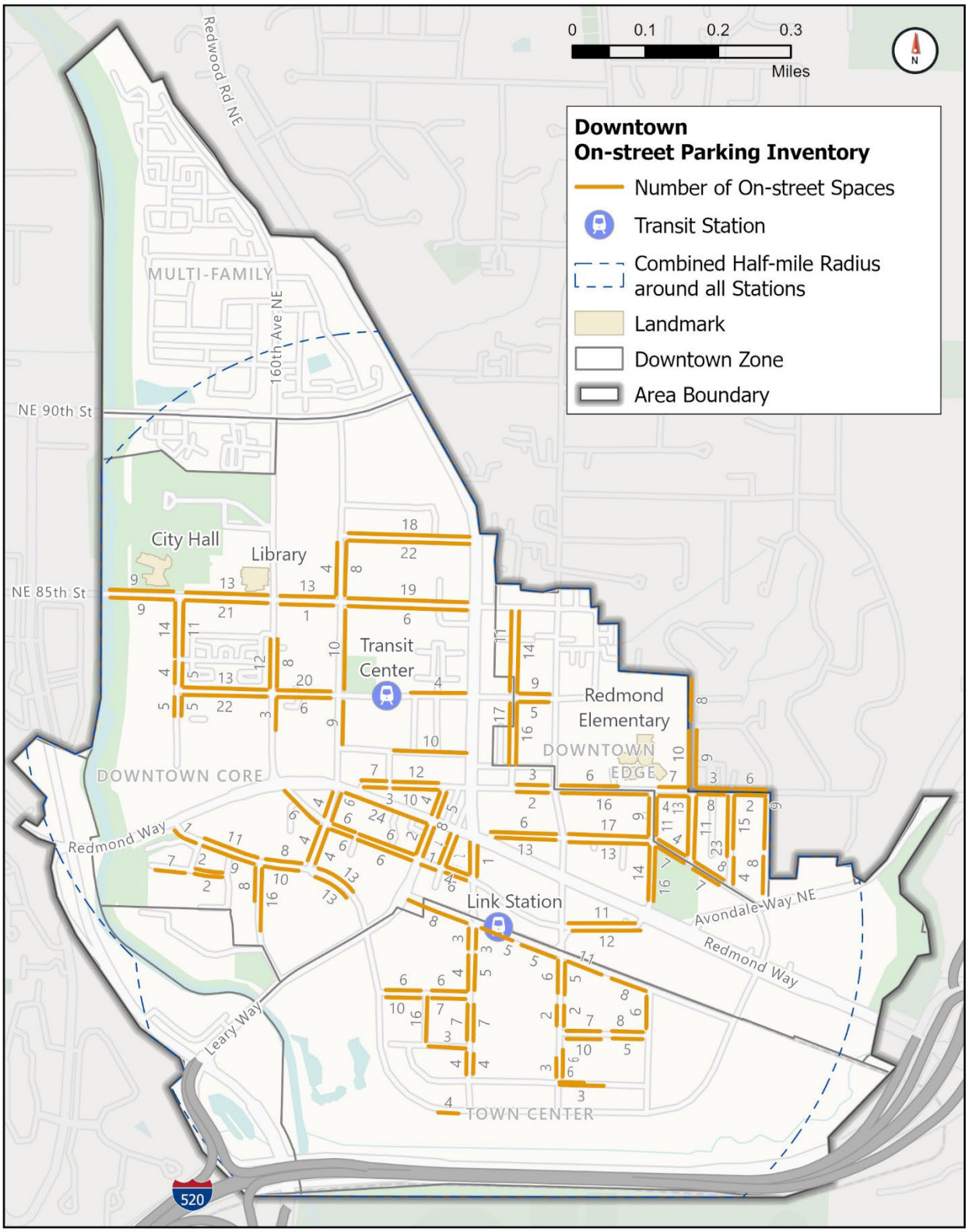


Table 3 summarizes the number of street segments with on-street parking spaces surveyed and total number spaces disaggregated by the three zones. The Downtown Edge zone is a combination of three areas on the edges of the Downtown area.

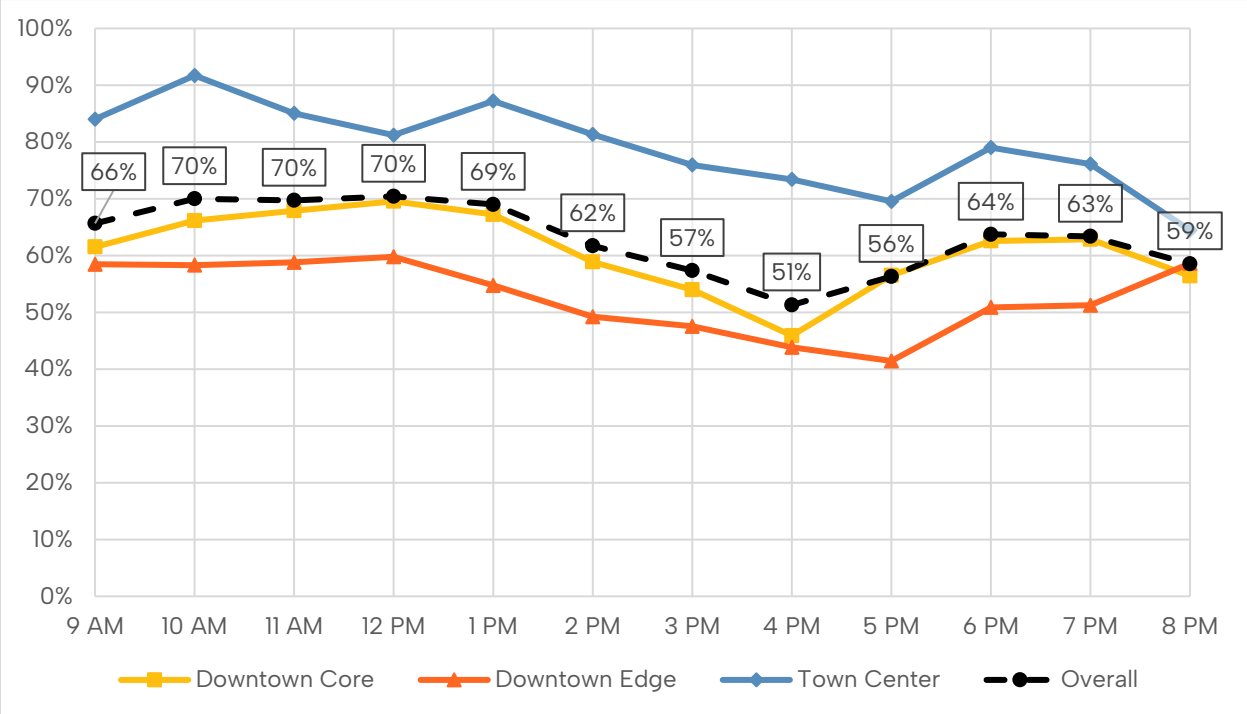
Table 3: Parking Spaces in Downtown Zones

Downtown Zone	No. On-street locations	No. of On-street Parking Spaces
Downtown Core	80	697
Downtown Edge	26	241
Town Center	33	195

3.3.2 On-street Occupancy

As described in Section 2.1, hourly count surveys were conducted from 9 AM to 8 PM on a weekday (Tuesday through Thursday). Figure 6 shows the occupancy levels for every hour, on-the-hour, at all segments within the Downtown neighborhood. Peak parking occupancy for the entire area occurred between 10 AM and 12 PM when 70% of spaces were occupied, while the least number of spaces were occupied at 4 PM with half the spaces empty. The higher demand between 9 AM and 4 PM can be associated with daytime employees, visitors, and other activities during the 9 AM – 5 PM work hours. After a low at 4 PM, the parking demand again rises to 61% indicating activity associated with food and entertainment businesses in addition to residents who live in Downtown, returning and utilizing on-street parking.

Figure 6: On-street Parking Spaces Occupancy – Downtown Zones



Thus, overall occupancy remained within the 50-70% band in the hours surveyed. This is consistent with the 2020 Existing Conditions Study, which also found the overall on-street parking occupancy to be above 50% on a weekday. However, peak on-street parking occupancy across the different zones

surveyed in Downtown was observed to be 60% occurring at 1 PM and then again at 6 PM. As illustrated in Figure 6 and summarized in Table 4, on-street parking occupancy ranges between 66% and 70% during the 9 AM – 1 PM period. The Town Center zone shows relatively higher occupancy rates of 81% to 92%, peaking at 92% at 10 AM, compared to the Downtown Core and Downtown Edge zones during the hours of 9 AM and 2 PM.

Table 4: On-street Hourly Occupancy by Downtown Zone

Zone	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM
Downtown Core	62%	66%	68%	70%	67%	59%	54%	46%	57%	63%	63%	56%
Downtown Edge	58%	58%	59%	60%	55%	49%	48%	44%	41%	51%	51%	59%
Town Center	84%	92%	85%	81%	87%	81%	76%	73%	70%	79%	76%	64%
Overall	**66%**	**70%**	**70%**	**70%**	**69%**	**62%**	**57%**	**51%**	**56%**	**64%**	**63%**	**59%**

Figure 7 and Figure 8 delve deeper into the area's parking occupancy levels by mapping it for the peak parking hours in the first and second half of the day at 12 PM and 6 PM. Table 5 below summarizes street segments with greater than 85% occupancy at 12 PM and/or 6 PM.

Table 5: On-street Segments with Parking Occupancy of 85% or greater at 12PM and/or 6PM

Street Segment	Between	Orientation	12 PM	6 PM
NE 87th St	161st and 164th	North	106%	89%
NE 85th St	161st and 164th	South	167%	67%
160th Ave NE	84th Way and 83rd	East	100%	38%
NE 83rd St	160th and 161st	North	90%	70%
NE 83rd St	158th and 160th	North	92%	46%
NE 83rd St	158th and 160th	South	91%	68%
161st Ave NE	83rd and 81st	East	100%	78%
NE 80th St	170th Ave and 170th Pl	South	100%	100%
NE 80th St	169th and 170th	North	33%	133%
NE 80th St	162nd and Leary	North	67%	92%
NE 80th St	162nd and Leary	South	70%	90%
NE 80th St	Redmond Way and 162nd	North	86%	43%
NE 80th St	Redmond Way and 162nd	South	100%	100%
161st Ave NE	Redmond Way and Cleveland	East	50%	100%
Cleveland St	161st and Brown	South	67%	100%
Cleveland St	Brown and Leary	North	100%	100%
Cleveland St	Brown and Leary	South	100%	117%
Leary Way	Redmond Way and Cleveland	West	100%	100%
Leary Way	Redmond Way and Cleveland	East	75%	125%
Gilman St	Redmond Way and Cleveland	West	100%	113%
Gilman St	Redmond Way and Cleveland	East	100%	67%
Cleveland St	Leary and Gilman	South	0%	100%
Cleveland St	Gilman and 164th	North	100%	75%
Cleveland St	166th and Redmond Way	North	100%	55%
NE 79th St	166th and 168th	North	88%	53%
NE 79th St	166th and 168th	South	92%	46%
168th Ave NE	79th and Redmond Way	West	50%	86%
168th Ave NE	79th and Redmond Way	East	75%	94%
169th Ave NE	80th and 79th	East	100%	100%
170th Ave NE	80th and Penny	East	80%	87%
170th Ave NE	Penny and 79th	East	75%	100%
170th Pl NE	80th and Penny	West	100%	89%
170th Pl NE	Penny and Avondale	East	100%	100%
NE 79th St	168th and 169th	South	100%	43%

Street Segment	Between	Orientation	12 PM	6 PM
NE 79th St	169th and 170th	South	129%	0%
Lagoon Lane	Dead End and Riverpark	South	100%	100%
Lagoon Lane	Riverpark and DW	North	150%	150%
Lagoon Lane	Riverpark and DW	South	50%	100%
Bear Creek Pkwy	Riverpark and 159th	North	46%	100%
Bear Creek Pkwy	Riverpark and 159th	South	56%	89%
161st Ave NE	Cleveland and Bear Creek	West	25%	100%
161st Ave NE	Cleveland and Bear Creek	East	50%	100%
NE 76th St	Leary and 164th	South	88%	63%
164th Ave NE	Redmond Way and Cleveland	West	100%	100%
164th Ave NE	Redmond Way and Cleveland	East	200%	200%
164th Ave NE	76th and DW	West	100%	33%
164th Ave NE	76th and DW	East	67%	100%
164th Ave NE	DW and 74th	East	120%	100%
NE 74th St	Bear Creek and 163rd	North	100%	17%
NE 74th St	163rd and 164th	South	100%	100%
164th Ave NE	74th and 73rd	East	100%	100%
164th Ave NE	74th and 73rd	West	71%	100%
164th Ave NE	73rd and 72nd	East	75%	100%
164th Ave NE	73rd and 72nd	West	75%	100%
NE 76th St	164th and DW	South	180%	80%
NE 76th St	DW and 166th	South	80%	100%
166th Ave NE	76th and DW	East	100%	120%
166th Ave NE	DW and 74th	West	100%	100%
166th Ave NE	DW and 74th	East	100%	100%
166th Ave NE	74th and 72nd	East	117%	100%
166th Ave NE	73rd and 72nd	West	100%	100%
NE 76th St	DW and 168th	South	63%	88%
NE 74th St	166th and DW	North	100%	71%
NE 74th St	166th and DW	South	100%	90%
NE 74th St	DW and 168th	North	100%	100%
168th Ave NE	76th and 74th	West	117%	133%

Figure 7: On-street Peak Parking Hour Occupancy — Downtown

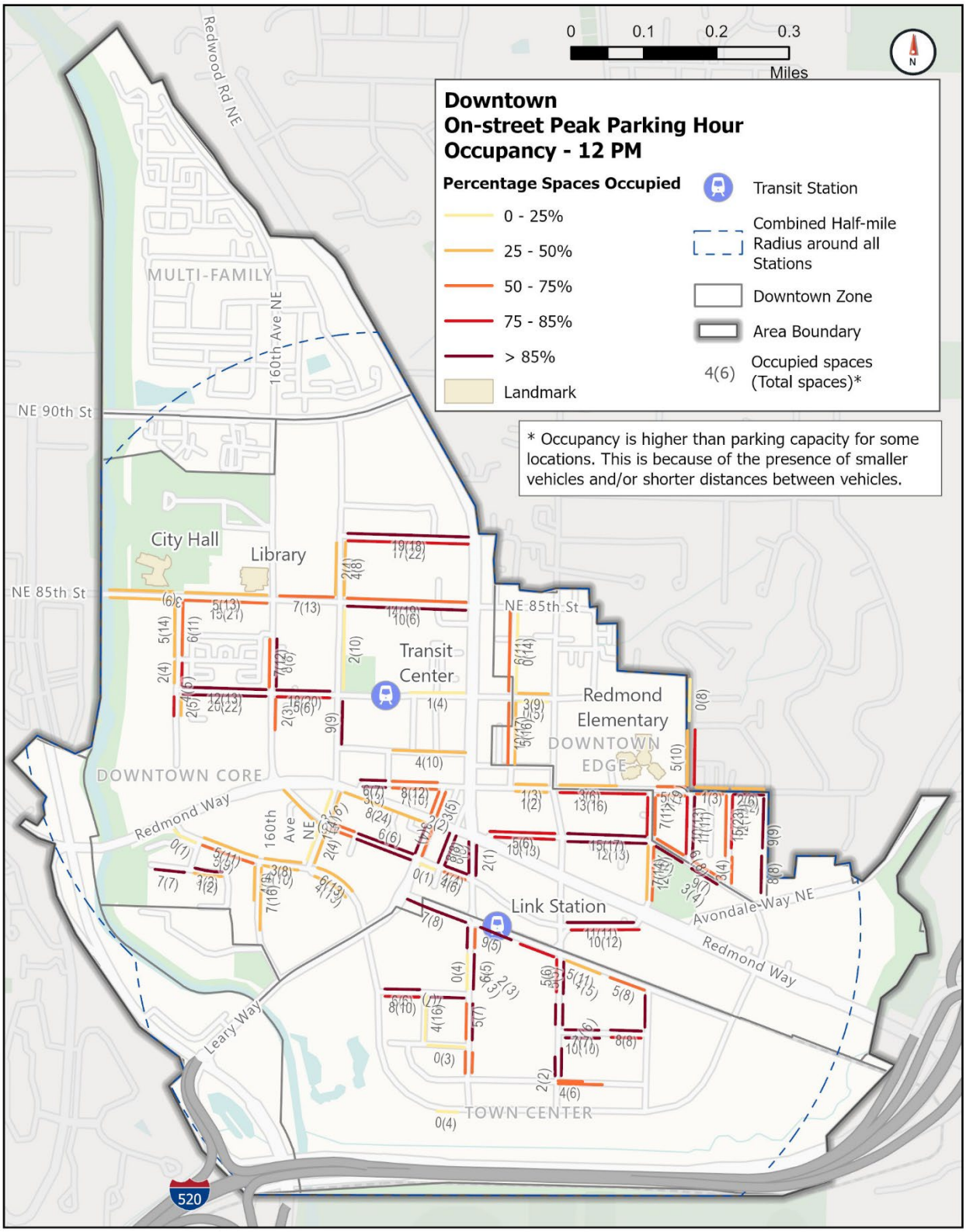
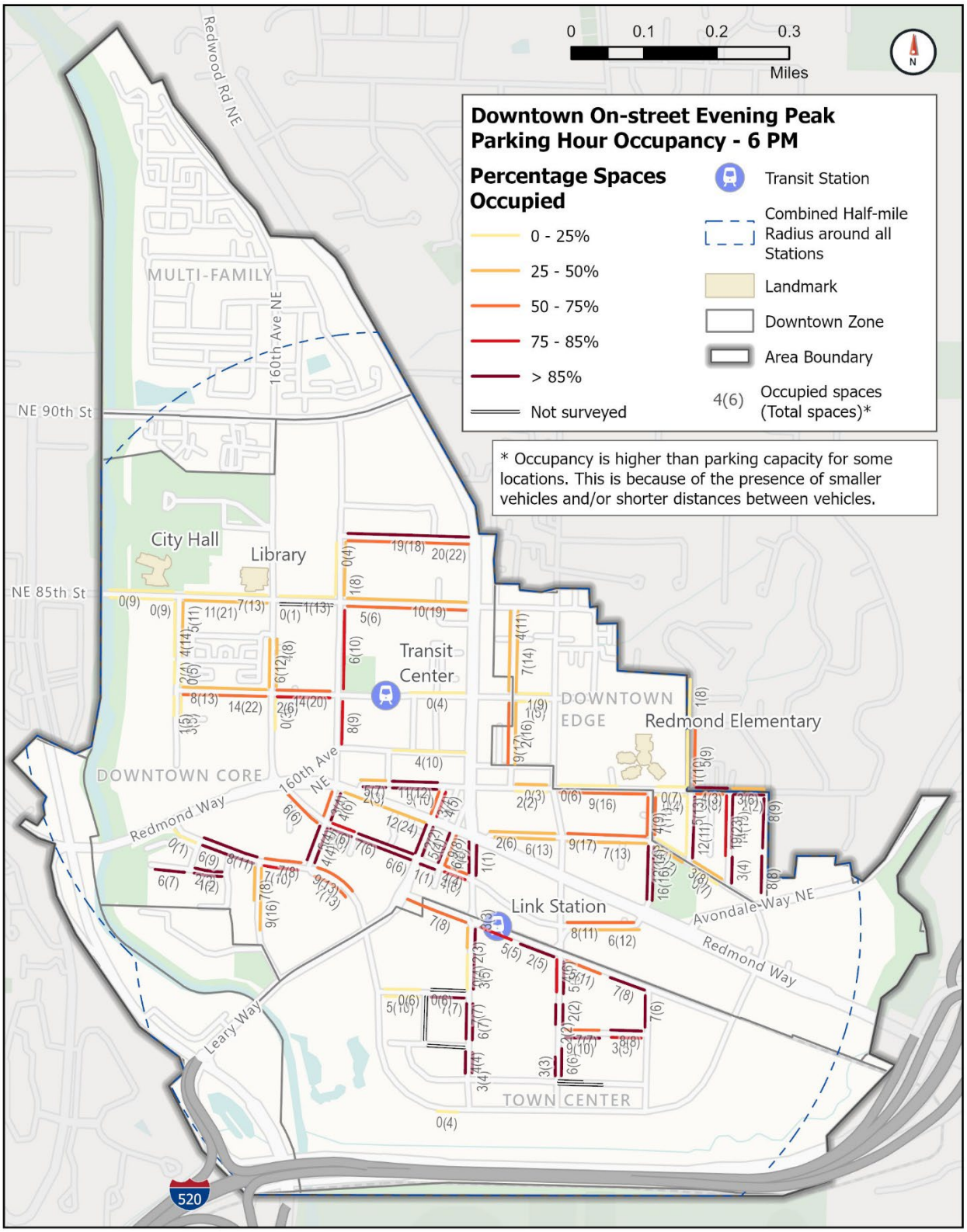


Figure 8: On-street Parking Occupancy at 6 PM — Downtown



3.3.3 Turnover Rate

Table 6: Turnover Rate by Downtown Zones

Location	Average Turnover Rate
Downtown Core	7.3
Downtown Edge	6.3

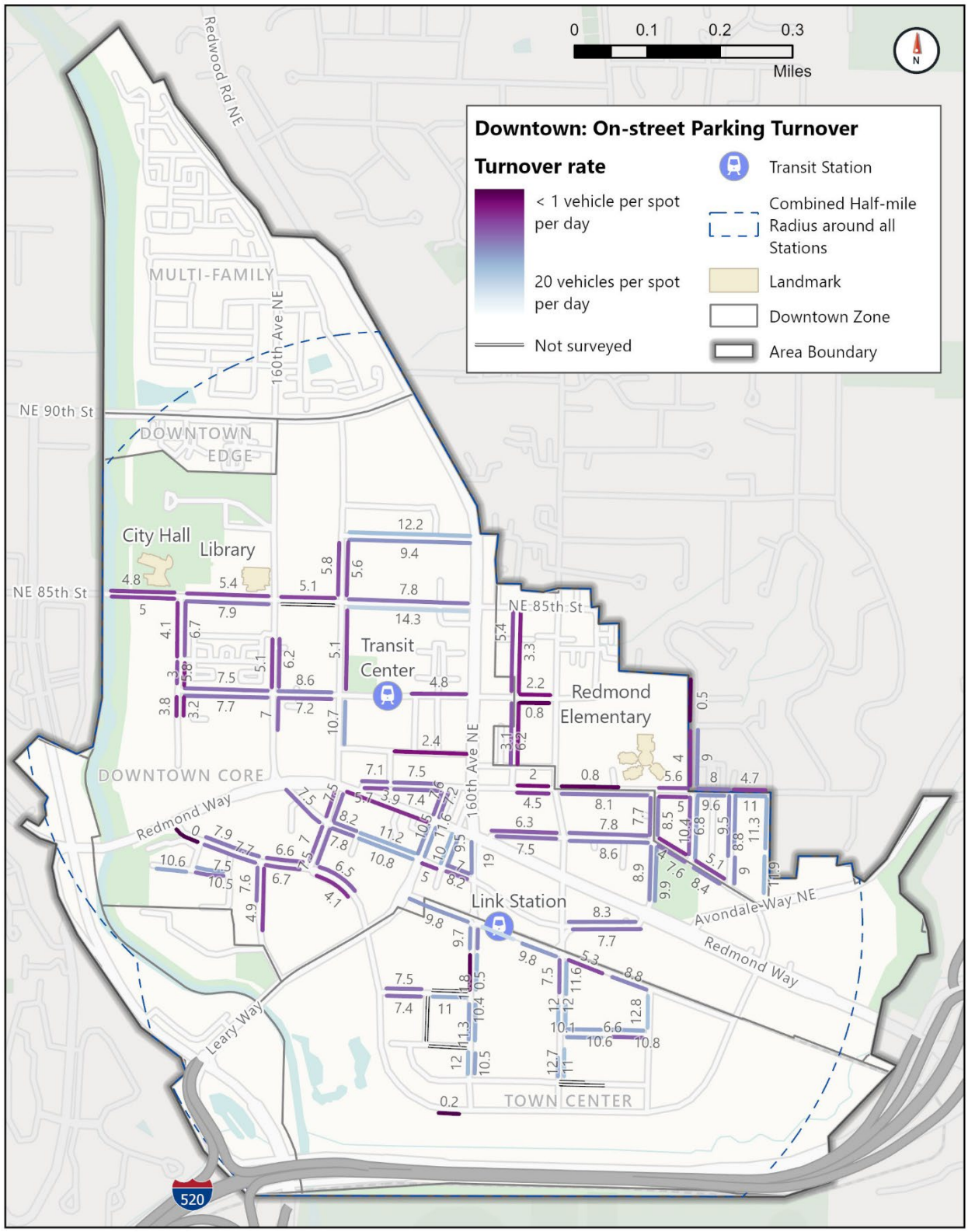
The turnover rate, defined in Section 2.2, can be interpreted as the efficiency of parking spaces. In Downtown, the rate varies between less than 1 car per space and to 20 cars per space, as recorded during the period of the survey and shown in Figure 10. For the purposes of this report, a higher turnover is desirable, indicating more efficient use of publicly accessible parking spaces. On the other hand, lower turnover rates are an indication of lower pricing, minimal restrictions, or a lack of enforcement if parking exceeds the limits. Table 6 further lists the turnover rate for the three main zones.

3.3.3.1 Interpreting Turnover Rate for Downtown

The City distributes limited parking permits which can be used for overnight parking in select restricted on-street spaces (shown in Figure 9). The turnover rate for Downtown (shown in Figure 10) does not account for these permits. Thus, a lower turnover rate may not just be an indication of, for example, customers spending more time in commercial areas; it may also indicate where permit holders park overnight.

Figure 9: Location of permit spaces in Downtown (Source: City of Redmond)

Figure 10: On-street Parking Turnover Rate — Downtown



3.4 Downtown Off-street Parking

3.4.1 Off-street Inventory

In Downtown, off-street facilities contain ten times as many parking spaces compared to on-street locations. There are 11,429 spots spread among 164 facilities, with their capacities ranging from 5 to 851 spaces. However, the typical or median facility has 25 spaces, indicating that most of them are on the smaller end in terms of capacity, with a few big outlier facilities.

Figure 11: Off-street Parking Inventory by Ownership – Downtown shows that 92% of this supply is privately owned while the remaining 8% is publicly operated. Some of the major private facilities include the Redmond Town Center (RTC) Mall garage, Bear Creek Shopping Mall in southeast, and Bella Bottega Shopping Center, offices, and multi-family apartment buildings in Downtown Core. Public ownership is only found for general parking facilities like transit and commercial area structures. Two of the public facilities, the Redmond Central Connector Lot and King County Metro Park & Ride, are near the existing and upcoming transit stations.

Figure 11: Off-street Parking Inventory by Ownership – Downtown

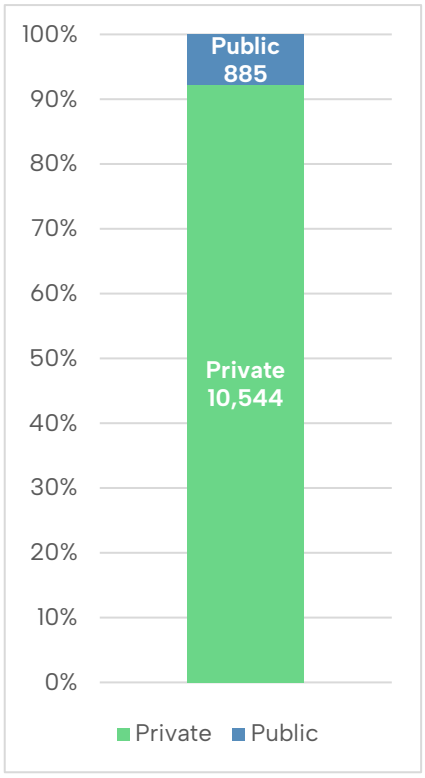


Figure 12 shows this spatially. As mentioned, most facilities have less than 100 parking spaces, while 28 out of the 164 locations are larger, with between 100 and 851 spaces. Most commercial and office spaces exist in the Core and Town Center zones and are accompanied by private parking lots and garages.

A few prominent parking facilities are listed in Table 7. Table 8 shows the split of parking off-street inventory between public and private parking spaces including number of locations.

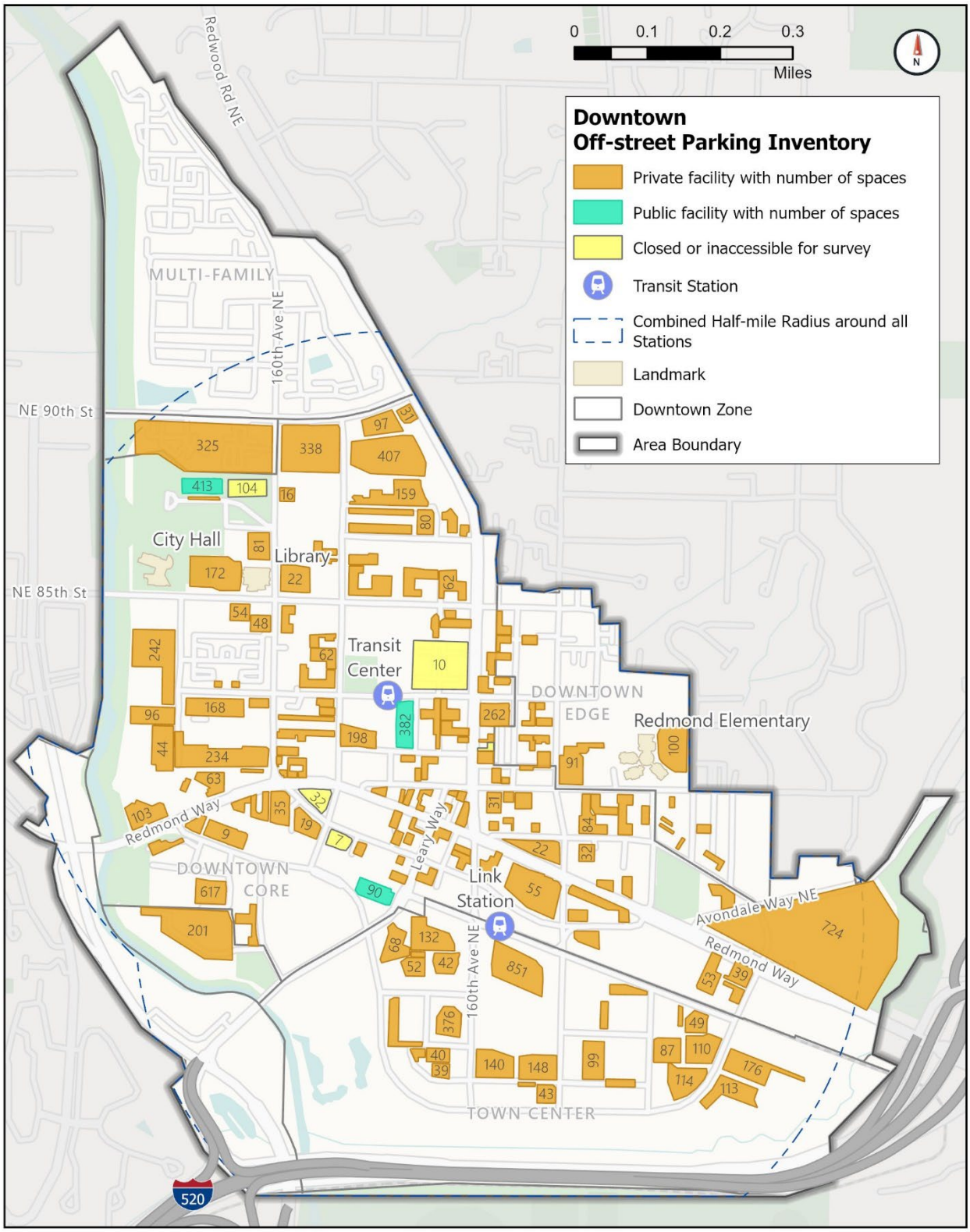
Table 7: Prominent Off-street Parking Facilities — Downtown

Location	Type	Number of spaces	Peak Occupancy
RTC Central Parking Garage	Private	851	66%
Bear Creek Shopping Mall	Private	724	46%
Riverpark Apartments	Private	617	47%
City Hall Campus Parking Garage	Public	413	62%
Bella Bottega Shopping Center	Private	407	32%
Redmond Park & Ride	Public	382	98%

Table 8: Off-street Parking Inventory — Downtown

Type of Facility	Number of facilities	Number of parking spaces
Private	160	10,544
Public	4	885
Total	**164**	**11,429**

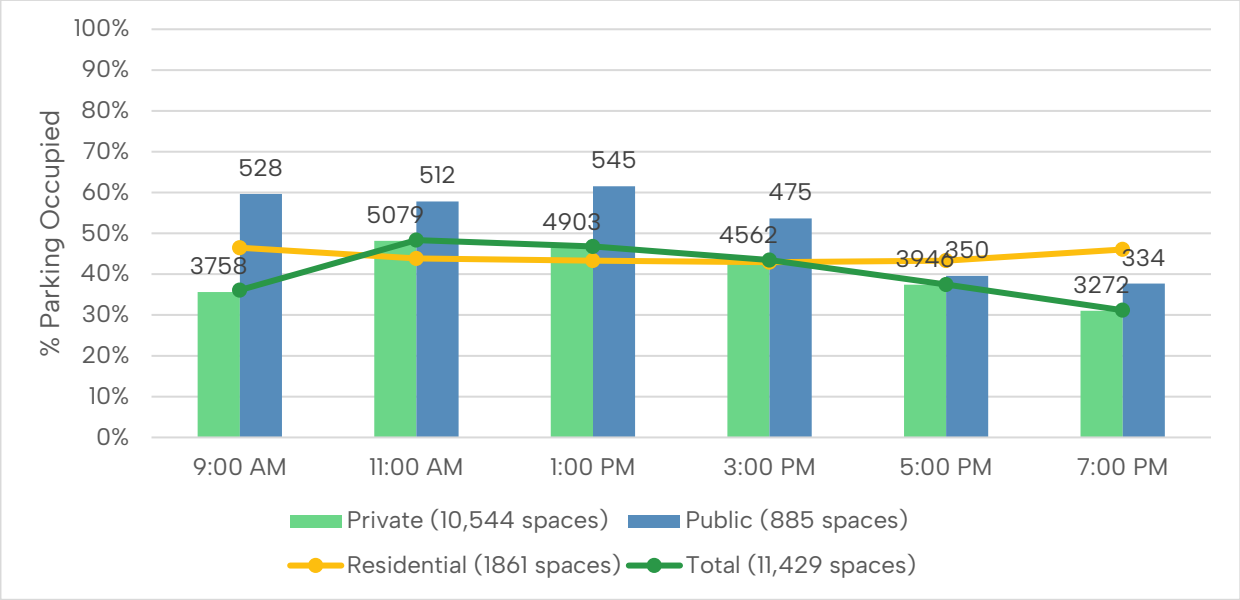
Figure 12: Off-street Parking Inventory — Downtown



3.4.2 Off-street Occupancy

Like on-street occupancy, off-street occupancy peaks late in the morning to early afternoon and then trends down during the rest of the day. On the day of the survey and for the recorded hours, a high of 51% occupancy was observed at 11 AM and a low 32% at 7 PM. Figure 13 shows this trend and the occupancy split between publicly- and privately-owned locations. In general, public locations see a higher occupancy of 20% than private ones during peak hours as most of them are provided for commuters. However, as discussed earlier, the supply of private spaces is much higher.

Figure 13: Off-street Parking Occupancy – Downtown



In Table 9, the off-street facilities are distributed across four land use categories — Residential, Office, Retail, and Other. These categories are informed guesses on the type of locations the parking facilities serve. Residential buildings are straightforward since they have exclusive parking. On the other hand, stores and small businesses sometimes share parking lots and so could fall into either Office or Retail. Still, the rough categorization is helpful in acquiring an inventory of the total number of parking spaces and the occupancy levels at peak parking hours.

Table 9: Inventory at Peak Hour Occupancy by Land Use — Downtown

Land Use	Inventory	Peak Occupancy
Residential	1,861	45% at 11 AM
Office	1,734	51% at 11 AM
Retail (stores, restaurants)	5,130	48% at 11 AM
Other (hospital, hotel, public parking, government / public buildings)	2,704	53% at 1 PM

A note on residential parking: In Downtown, out of the 11,429 total off-street parking spaces, 1,861 (16%) are part of 19 residential buildings. Figure 13 above also shows the occupancy levels in residential parking facilities separately, and it follows a nearly opposite trend to that of overall occupancy levels.

Table 10 splits the hourly occupancy data by zones, showing that the central area, Downtown Core, has the most spaces but also lower occupancy compared to Downtown Edge and Town Center.

Table 10: Off-street Hourly Occupancy by Downtown Zone

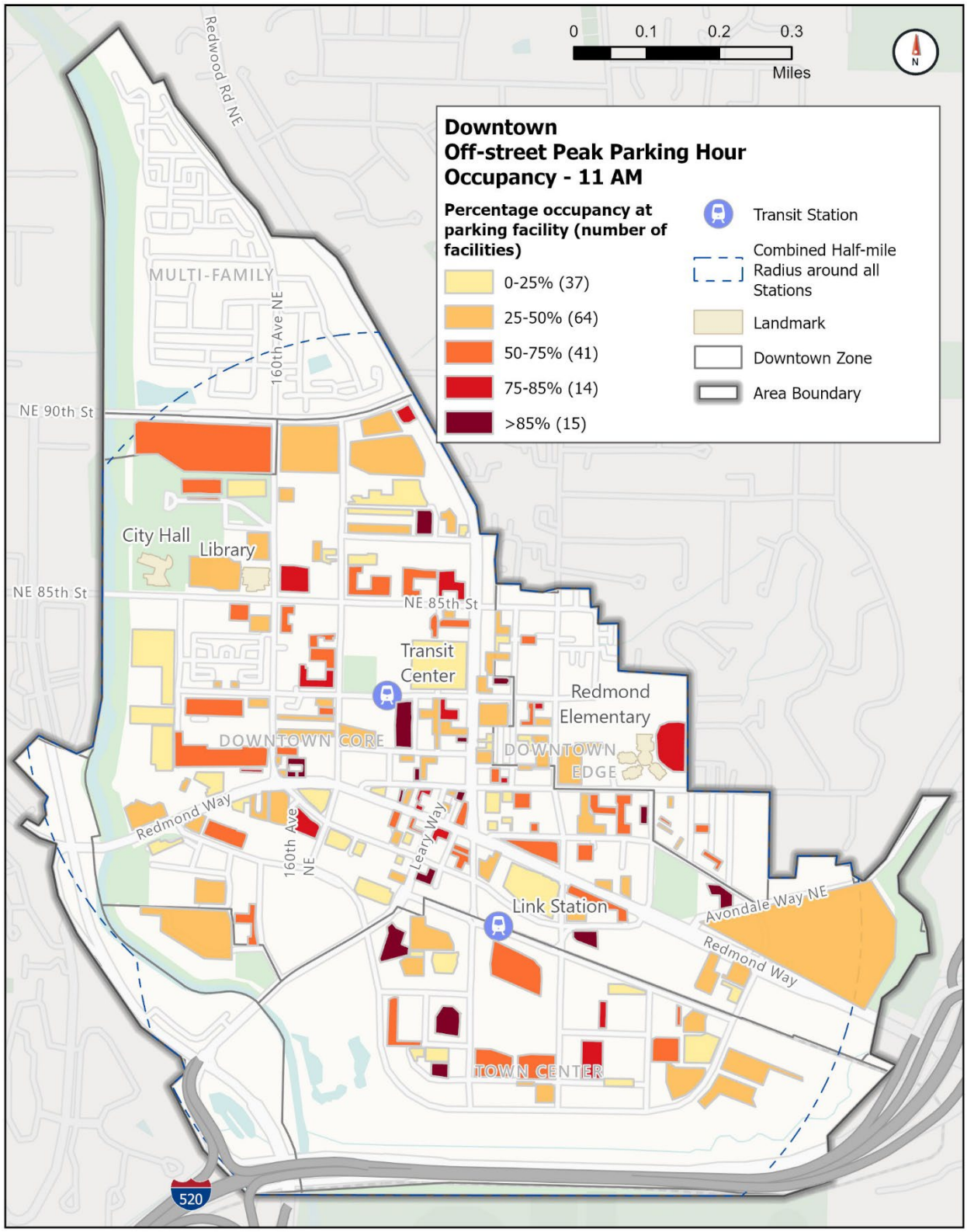
Zone	Number of Facilities	Number of spaces	9 AM	11 AM	1 PM	3 PM	5 PM	7 PM
Downtown Core	125	7830	34%	47%	45%	40%	35%	29%
Downtown Edge	20	1015	47%	49%	48%	51%	50%	46%
Town Center	26	2864	36%	47%	50%	48%	40%	34%

Figure 14 shows the occupancy of the facilities specifically at the hour of highest occupancy, 11 AM. Comparing with the inventory figure, the big facilities, with capacities between 300-900 spaces each, show medium occupancy from 25-75%. Very few facilities are above the threshold of 85%. Most locations above that threshold are the smaller dedicated lots for local businesses and restaurants. The only bigger location with >85% occupancy is the parking garage for the RTC Management office building (376 spaces). A list of the occupancy details of the 15 biggest parking facilities in Downtown Redmond is presented in Table 11. At a few locations, the time of highest occupancy is different from the 11 AM peak occupancy hour for Downtown.

Table 11: Occupancy of Prominent Off-street Parking Facilities — Downtown

Lot Name	Capacity	Time of Peak Occupancy	Peak Occupancy	Occupancy at 11 AM	Available Spaces at Peak Occupancy
RTC Central Parking Garage	851	3 PM	66%	63%	290
Bear Creek Shopping Mall	724	11 AM	46%	46%	392
Riverpark Apartments	617	9 AM	47%	43%	327
City Hall Campus Parking Garage	413	11 AM	62%	62%	157
Bella Bottega Shopping Center	407	1 PM	32%	28%	278
Redmond Park and Ride	382	11 AM	98%	98%	7
RTC Management	376	11 AM	86%	86%	51
Bella Bottega Shopping Center West	338	3 PM	40%	34%	203
Redmond Place Apts	325	9 AM	63%	54%	120
The Luke Apts	262	7 PM	61%	41%	101
Opportunity Building North	242	11 AM	14%	14%	207
QFC	234	11 AM	73%	73%	64
Peloton Apartments	201	7 PM	62%	46%	76
Platinum Parking Veloce Apts	198	9 AM	39%	36%	121
24-Hour Fitness	176	7 PM	85%	44%	26

Figure 14: Off-street Peak Parking Hour of Occupancy — Downtown



3.5 Overall Downtown Peak Parking Occupancy

Figure 15 shows the combined occupancy for both on- and off-street parking spaces at 11 AM.

Figure 15: Overall Peak Parking Hour Occupancy — Downtown

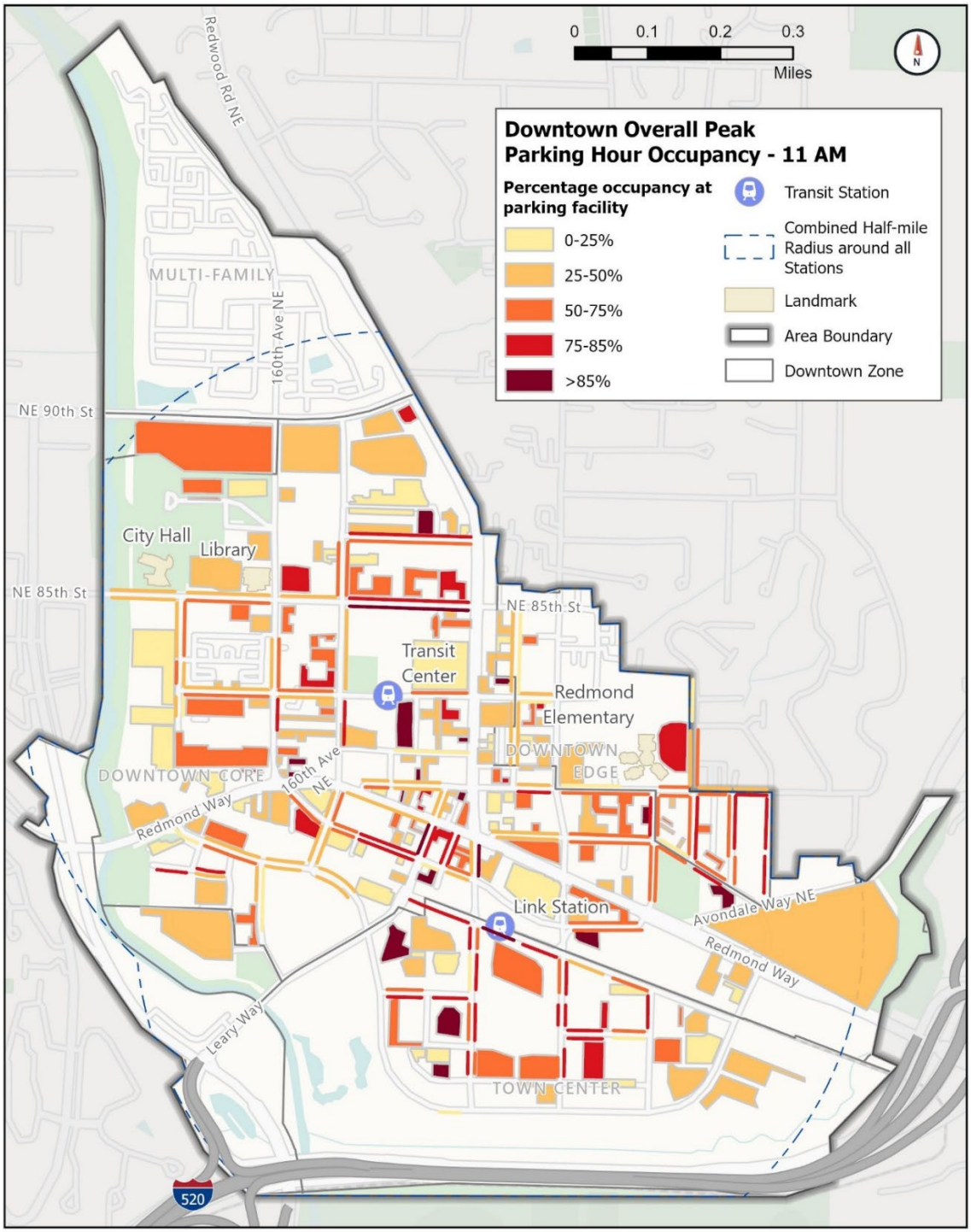


Table 12: Summary of Parking Occupancy — Downtown

Zone	On-street			Off-street		
	Total Spaces	Peak Parking Occupancy	Available Spaces at Peak Hour	Total Spaces	Peak Parking Occupancy	Available Spaces at Peak Hour
Downtown Core	697	70%	212	7830	59%	3244
Downtown Edge	241	60%	97	1015	61%	401
Town Center	195	92%	16	2864	61%	1113

4. Overlake Village Parking Data

4.1 Overlake Village

Overlake Village urban center, shown in Figure 16, is known for hosting many of Microsoft's office buildings. The southernmost neighborhood of Redmond lies just southwest of Downtown, with Marymoor Village and Idylwood to its east, Grass Lawn to its northwest, and the City of Bellevue to its west. SR 520, on the edge of Downtown, cuts through Overlake Village from north to south. The western boundary runs along 148th Ave and the eastern boundary runs along the West Lake Sammamish Parkway and Bel-Red Road. The 20th St bookends the neighborhood on the south.

Much of the northern area is covered with dense foliage and houses, with more apartment buildings south of that. Overlake Village has a higher mix of single-family housing; there are about 1100 houses and 1900 multi-family units. Most of the remaining neighborhood contains office buildings.

Two out of the four 2 Line extension stations are in Overlake Village, underscoring its importance as an transportation and employment hub.

4.2 Overall Overlake Parking Inventory

Overlake Village has a total of 6,769 parking spaces distributed between on-street sites and off-street facilities. Figure 17 shows the distribution of all parking locations. Microsoft occupies a large number of buildings in the central Business and Advanced Technology zone, and parking for these offices is not considered in this report. Consequently, nearly all the parking locations surveyed are in multi-family and the southern "Overlake Village" zones.

Table 13 shows a summary of parking inventory in Overlake Village distributed among on-street and off-street parking. The table also shows the number of on-street segments surveyed and the percentage of public and private spaces surveyed.

Table 13: Total Parking Inventory — Overlake Village

Parking type	No. of Locations	No. of Parking Spaces	Percent of Overall Parking Supply
On-street	16	134	2%
Off-street	92	6,635	98%
Public	*2*	*579*	*9%*
Private	*90*	*6,056*	*89%*

Figure 16: Overlake Village, Redmond

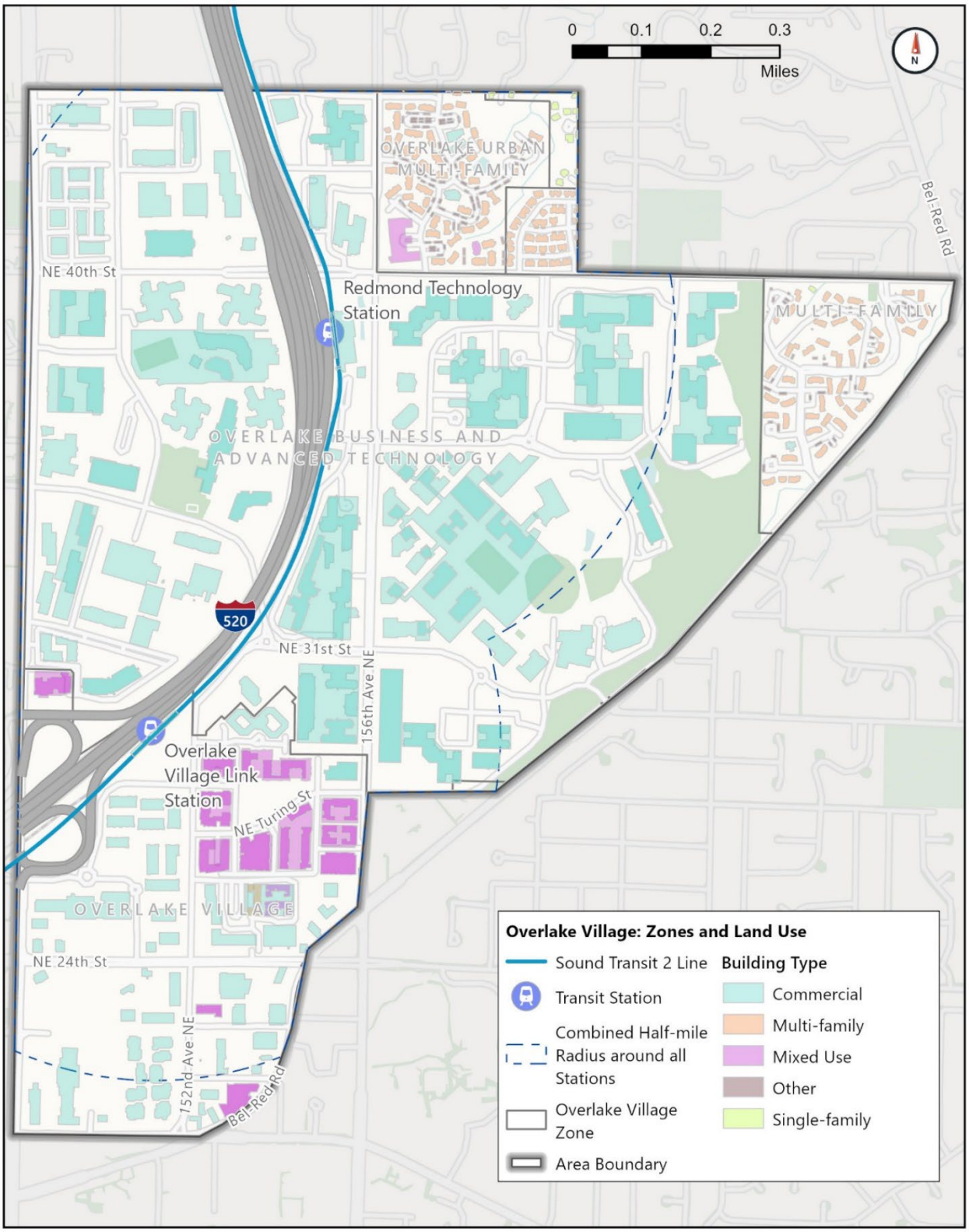
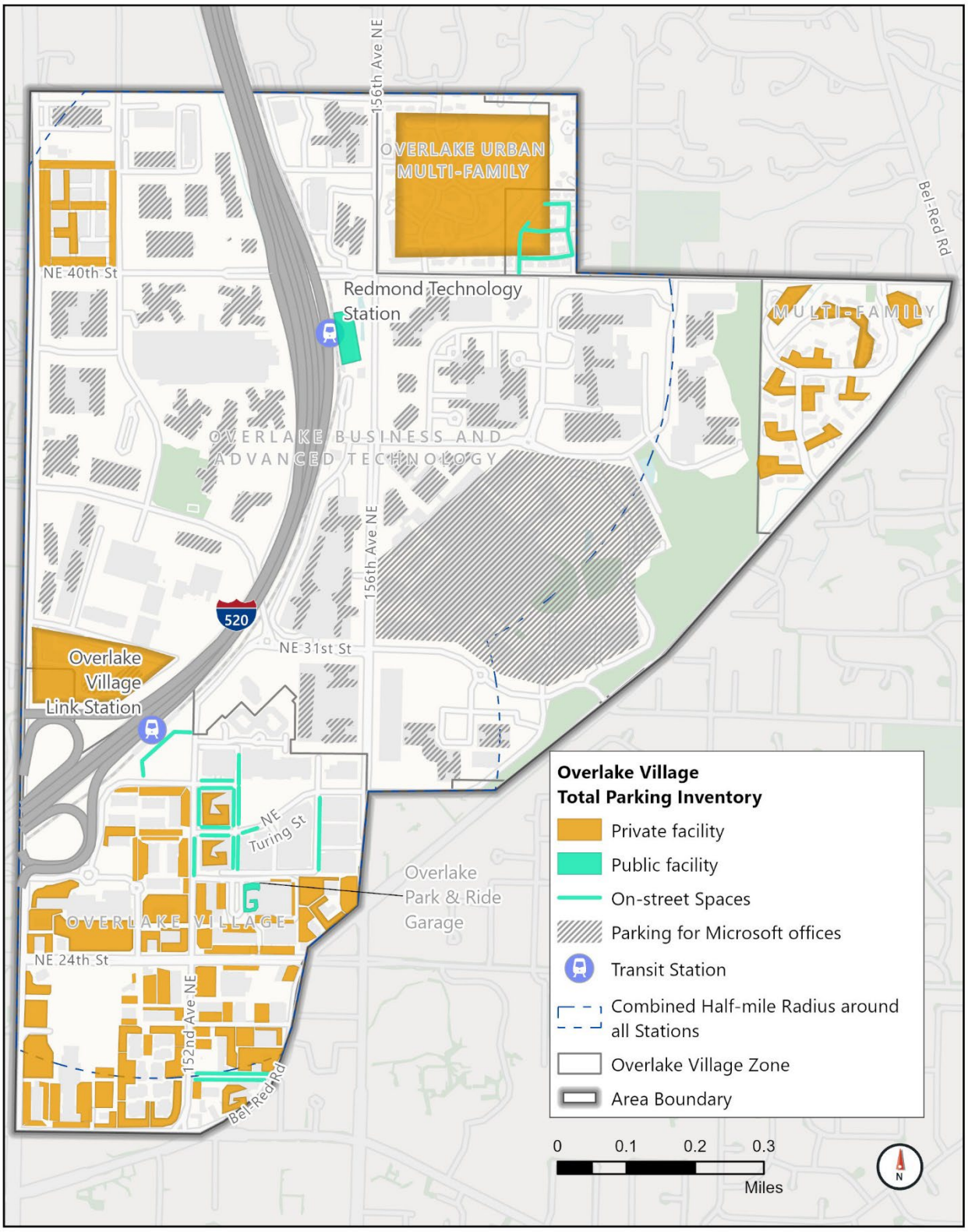


Figure 17: Total Parking Inventory — Overlake Village



4.3 Overlake On-street Parking

4.3.1 On-street Inventory

Overlake Village has 134 on-street spaces. Figure 18 on the following page shows the distribution of on-street spaces. Many of the streets including arterials and collector roadways directly serving the surveyed areas do not have on-street parking supporting the adjacent land-uses. This difference in design is reflected in the limited presence of on-street parking to just the Overlake Village and Multi-Family zones.

Table 14 presents a distribution of the parking spaces into access types. 129 out of 134 spaces are unrestricted parking with no time limits, three are loading zones, and two are for emergency vehicles only. In contrast to Downtown, there are zero restricted, ADA-only, and permit spaces in Overlake Village. The majority of the on-street parking is around the recently re-developed "Esterra Park". Future development of Overlake Village will likely follow similar development patterns.

Table 14: On-street Parking Inventory by Type – Overlake Village

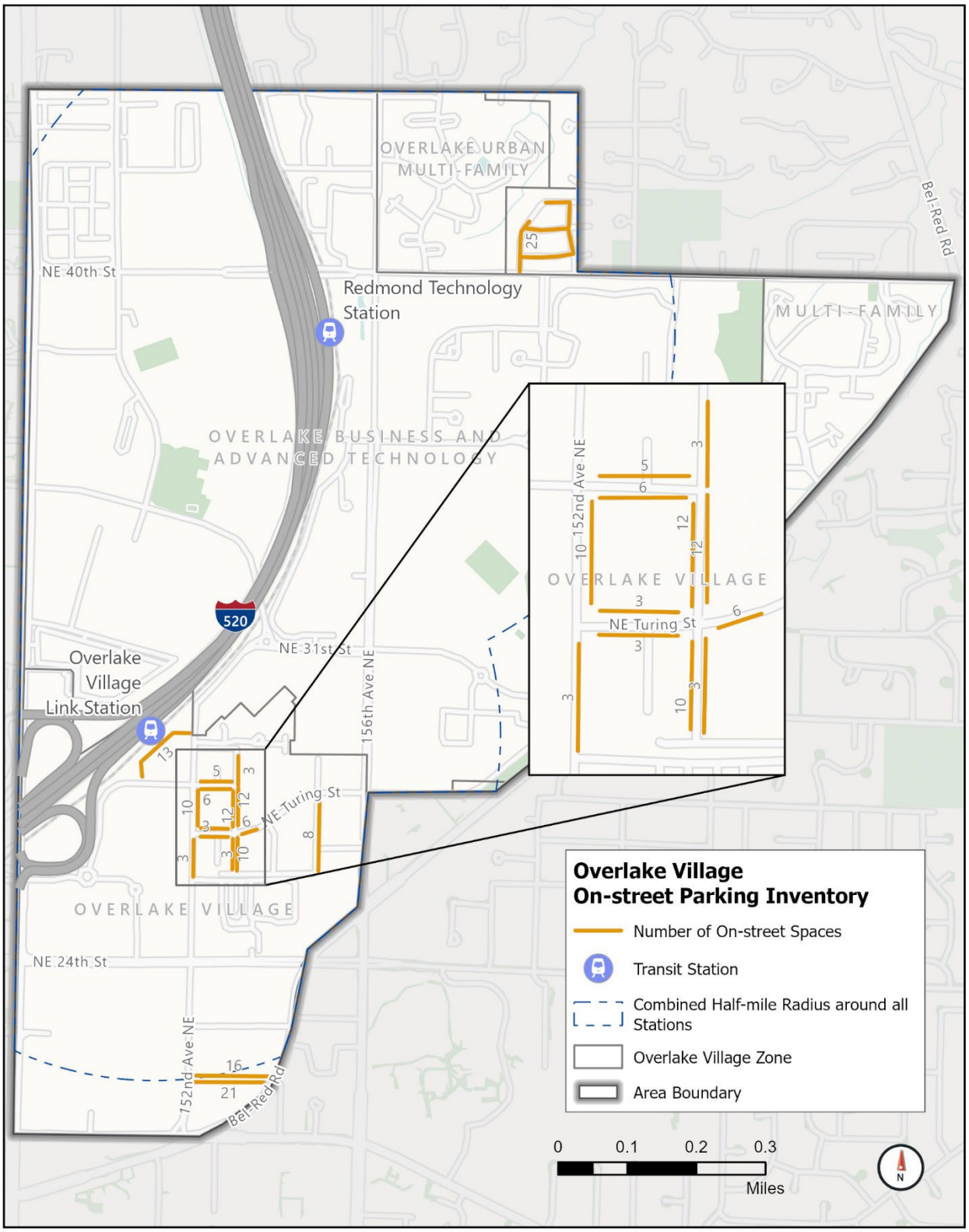
Parking space type	Number of spaces	Percent of total
Unrestricted parking	129	95.8%
30-min loading zone	3	2.5%
Emergency vehicle only	2	1.7%
Total inventory	**134**	**100%**

Table 15 shows a summary of on-street parking distributed among Multifamily block and Overlake Village.

Table 15: Summary of On-street Parking — Overlake Village

Overlake Village Zone	Number of locations	Number of parking spaces
Overlake Village	15	109
Multi-Family	1	25

Figure 18: On-street Parking Inventory — Overlake Village



4.3.2 On-street Occupancy

Figure 19 shows the occupancy levels for every hour at all on-street segments in Overlake Village. In contrast to Downtown, parking occupancy reaches its peak in the evening at 7 PM. This is well after the commute-related peak hours and nearly reaches the 85% occupancy threshold. The lowest occupancy is observed at 3 PM with 65% of all the spaces occupied.

Figure 19: On-street Parking Spaces Occupancy – Overlake Village

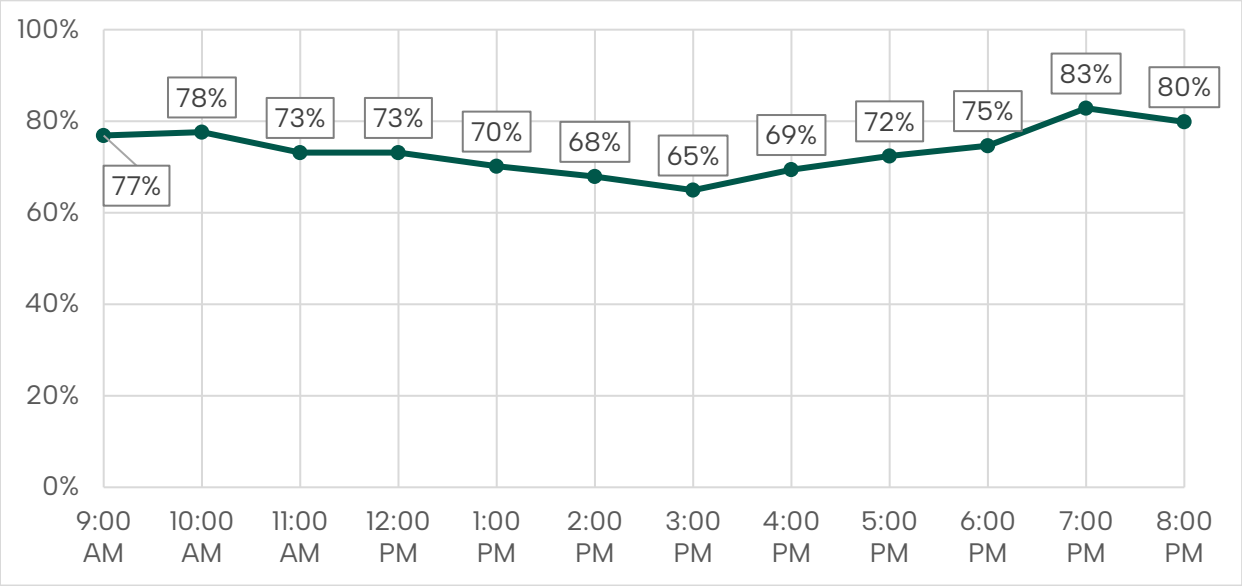
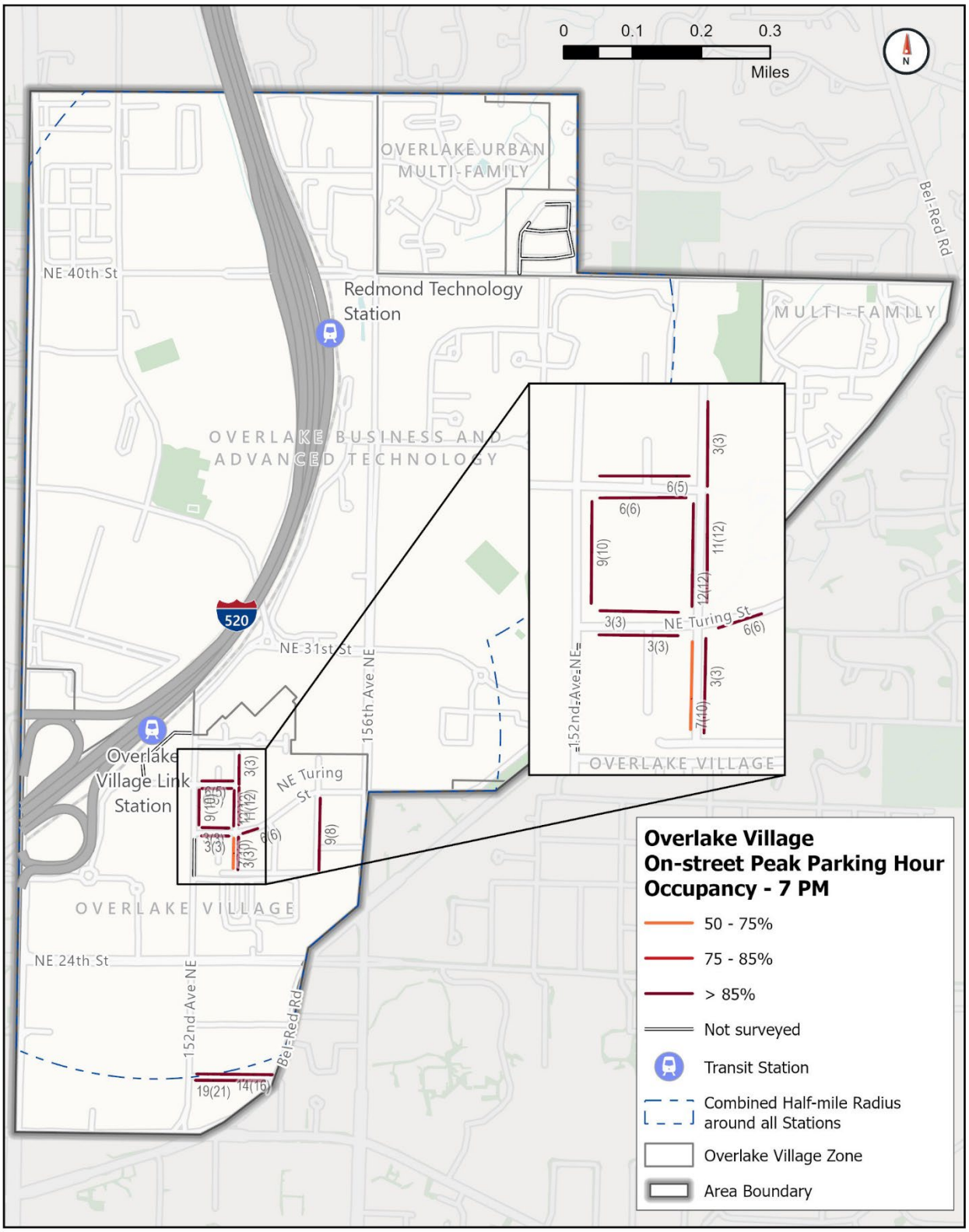


Figure 20 shows the area's parking occupancy levels by mapping it for the peak parking hour at 7 PM. It must be noted that occupancy data is unavailable for a few locations as these were not included in the follow-up survey; these are marked as "**Not surveyed**" in the map.

As shown in Figures 18 and 19, the streets surveyed near the Overlake Village Link Station are predominantly surrounded by multifamily housing. This occupancy data reveals a pattern of usage that peaks in the morning and evening, indicating that residents park their vehicles on the streets as well as in on-site parking facilities. During the middle of the day, parking occupancy drops to 65%, suggesting that some residents move their vehicles to run errands or make trips during this time.

Figure 20: On-street Peak Parking Hour Occupancy — Overlake Village

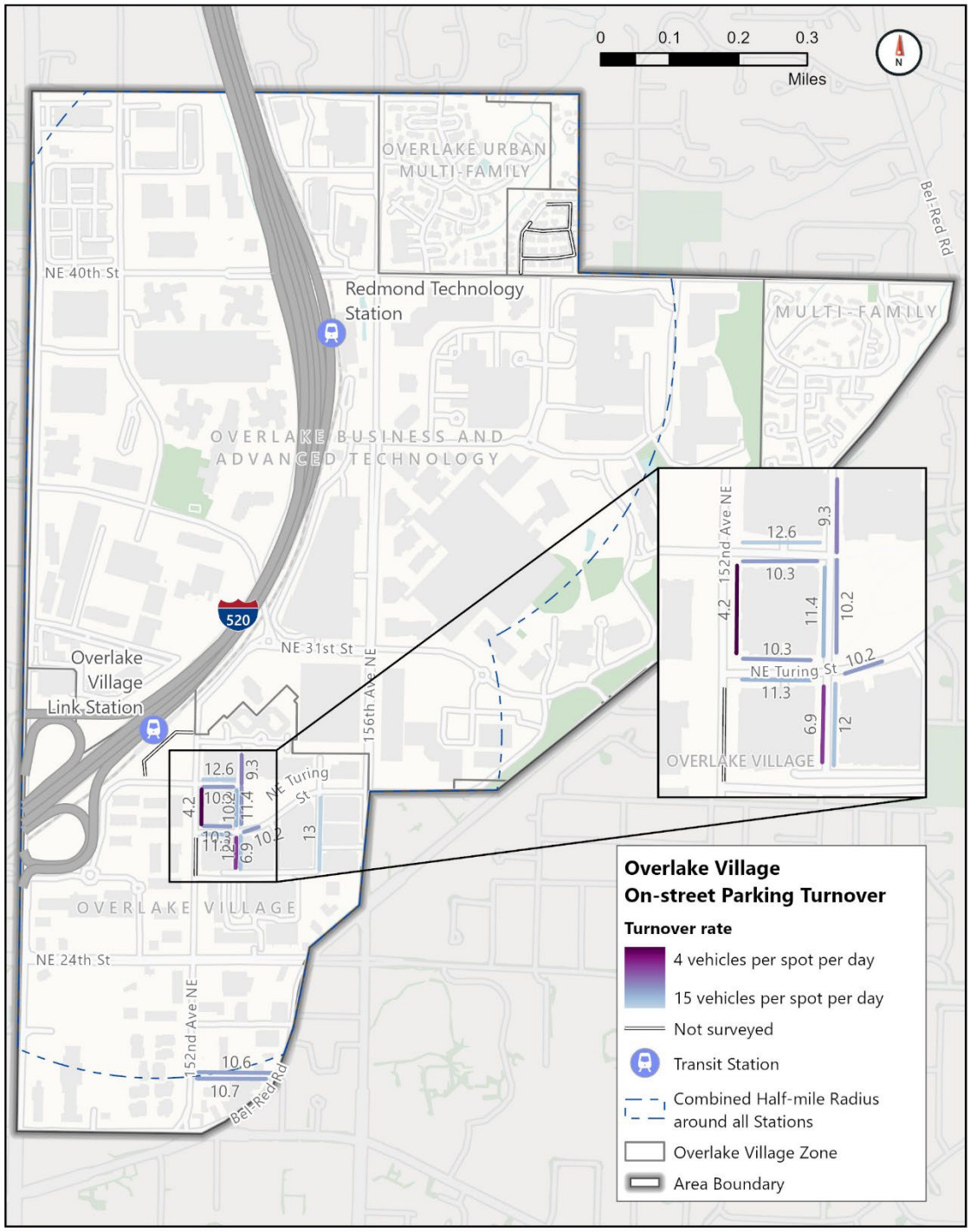


Except for the street segment of Calder Ave NE between NE Turning St and NE Hopper Street, all surveyed segments were observed at 85% or more occupancy at 7 PM (peak hour).

4.3.3 Turnover Rate

While Figure 19 earlier showed that occupancy is high throughout the survey period, the map in Figure 21 shows that this is not because the cars are parked for longer durations at the on-street spaces which do not have time restriction. Instead, the turnover ranged between 4 and 15 per spot per day, with an average rate of 10. That means that every on-street space experienced at least four cars parked throughout the survey period, indicating more efficient usage compared to Downtown.

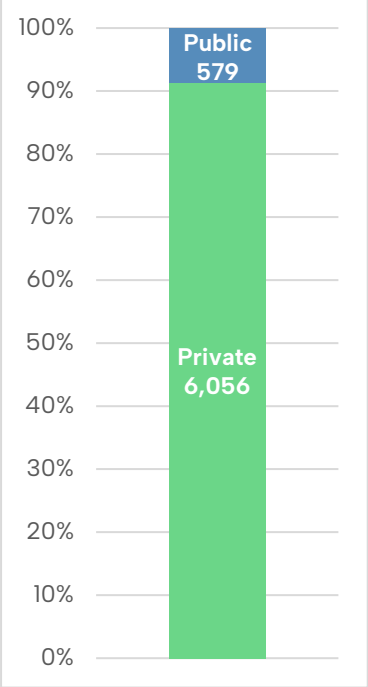
Figure 21: On-street Parking Turnover — Overlake Village



4.4 Overlake Off-street Parking

4.4.1 Off-street Inventory

Figure 22: Off-Stret Parking Inventory by Ownership – Overlake



Overlake Village is dominated by office buildings. Therefore, off-street parking facilities dominate the supply of parking too. Compared to the 118 on-street spots, there are 6,635 off-street spaces. In other words, for every on-street spot, there are 56 spaces located in off-street facilities. More than 90% of these are privately-owned, while less than 10% are present in publicly owned facilities (Figure 22). The 579 public off-street spaces are present in two structures for commuters — the Sound Transit Light Rail Redmond Tech Station and the King County Metro Overlake Park and Ride Garage.

This study did not collect data on Microsoft's private parking facilities, but Microsoft is estimated to have 6,500 spaces in their campus garages and an additional 390 spaces in surface lots.

4.4.2 Off-street Occupancy

Unlike the late evening peak occupancy observed for on-street spaces, the off-street facilities follow a more expected peak hour trend during the day. However, overall occupancy itself is low, going only as high as 37% at around 11 AM and down to 24% at 7 PM (Figure 23). Noticeably, these are much lower values than those observed in Downtown Redmond.

Table 16 shows the inventory and peak occupancy levels for Overlake Village. Unlike in Downtown, the peak occupancy hours vary between land use types, with residential especially peaking late in the evening. Furthermore, parking for retail dominates the supply.

Table 16: Inventory at Peak Hour Occupancy by Land Use — Overlake Village

Land Use	Inventory	Peak Occupancy
Residential	1590	53% at 7 PM
Office	1337	40% at 11 AM
Retail (stores, restaurants)	2747	35% at 1 PM
Other (hospital, hotel, public parking, government / public buildings)	961	32% at 11 AM

A note on residential parking

Similar to the analysis for Downtown, off-street residential parking in Overlake Village follows its own trend. Out of the total of 6,635 off-street spaces, 1,590 (24%) are exclusively for residential buildings. Unlike the overall occupancy trend, residential parking peaks in the morning and late in the day.

Figure 23: Off-street Parking Occupancy — Overlake Village

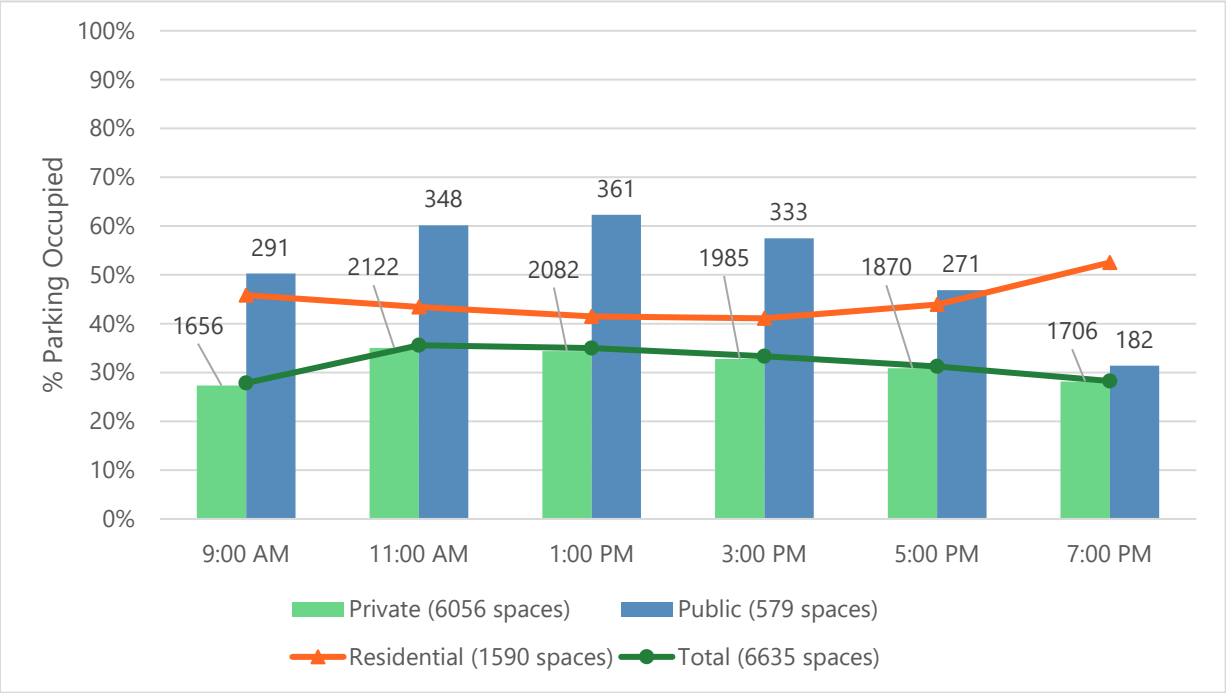


Figure 24 shows the locations of these facilities. As expected, the Business and Advanced Technology zone is mostly dominated by Microsoft parking, except for the Sound Transit garage and cluster of spaces on the west side next to 150th Ave and NE 40th St. The remaining locations are clustered at the edges of the area, in the Overlake Village zone, which is more commercial oriented, in the south and the Multi-Family zone in the east.

Figure 25 shows the spatial distribution of occupancy at the peak parking hour, 11 AM. The south end, which as mentioned before is more commercial oriented, has on average lesser occupancy (with a few exceptions) than the facilities in the multi-family zone on the east side.

Since the survey does not include exclusive parking for Microsoft office buildings, a majority of parking facilities observed with more than 85% occupancy were part of residential mixed-use building, where parking is occupied at a higher rate compared to commercial office type uses.

Figure 24: Off-street Parking Inventory — Overlake Village

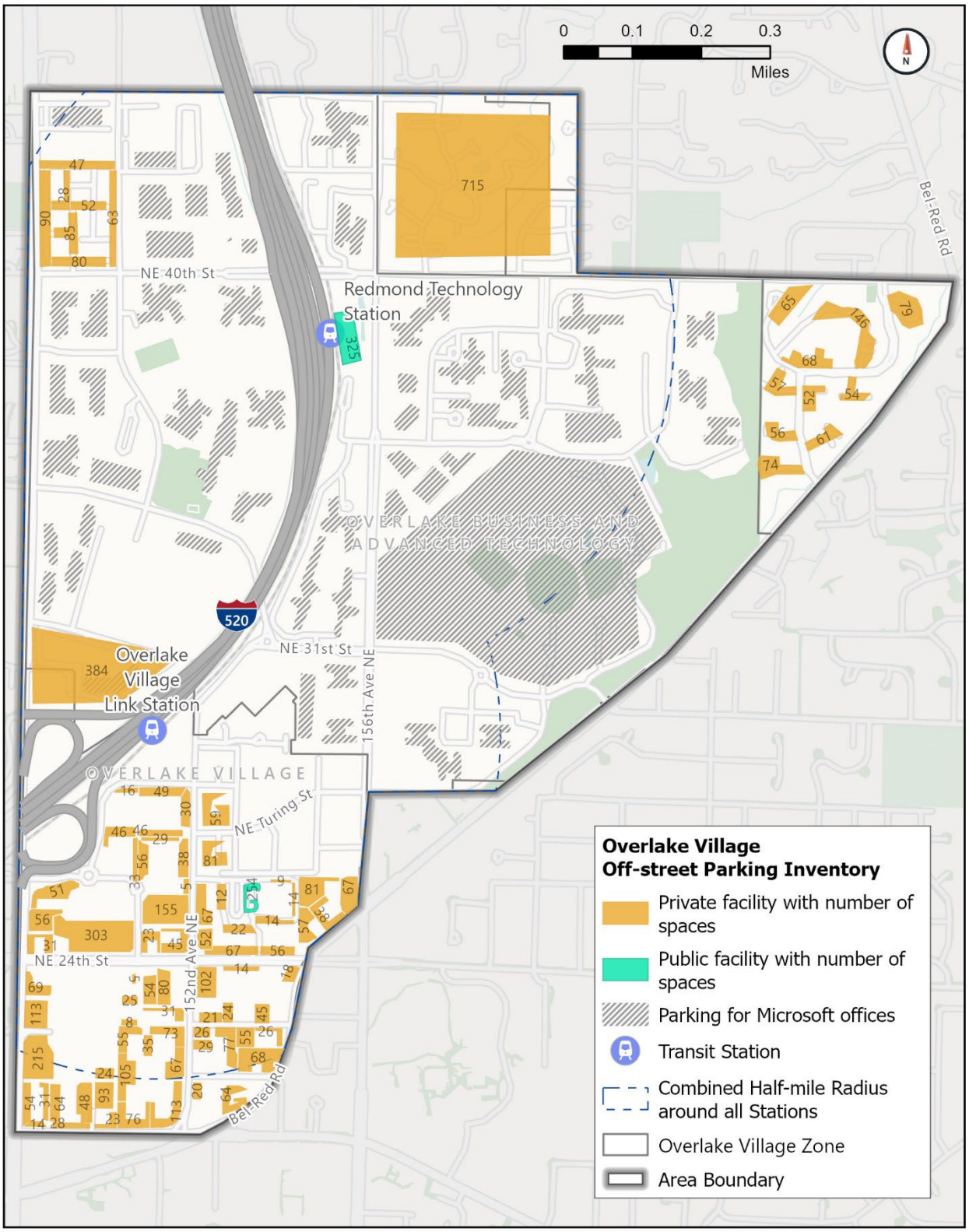


Figure 25: Off-street Peak Parking Hour Occupancy — Overlake Village

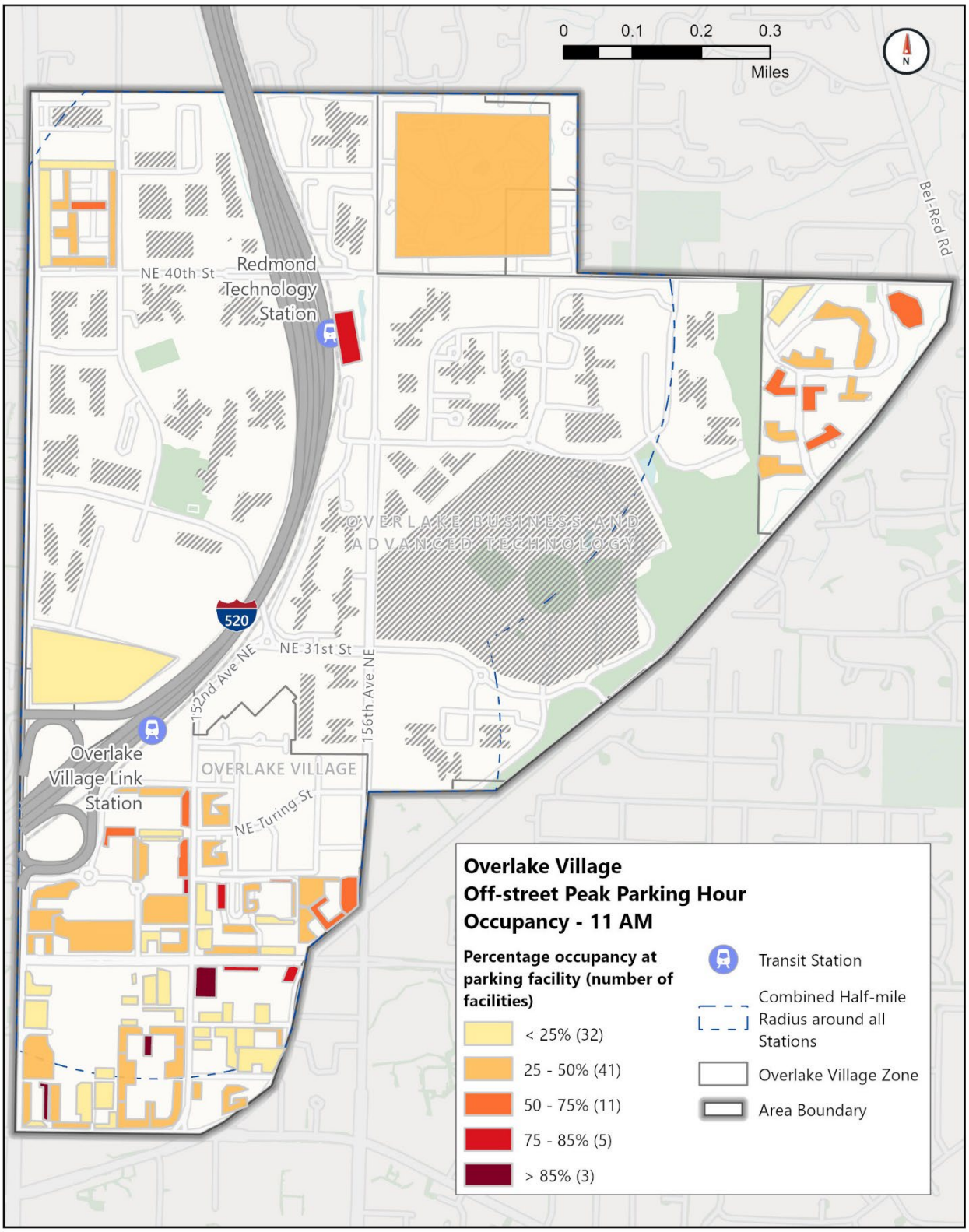


Table 17 shows parking occupancy at prominent parking facilities surveyed in the Overlake Village.

Table 17: Peak Hour Parking Occupancy of the Prominent Parking Facilities

Public facility	Inventory	Peak occupancy	Remaining Capacity
Redmond Technology Station	325	82% at 1 PM	58
Overlake Park & Ride Garage	254	51% at 7 PM	124
Private facility	**Inventory**	**Peak occupancy**	**Remaining Capacity**
Eaves/Harper Hill/Timberlawn Apartments	715	46% at 11 AM	389
Bright Horizons/Microsoft 109	384	5% at 11 AM	365
Safeway	303	46% at 7 PM	164
Overlake Plaza- Main Parking Lot	215	44% at 5 PM	121
Overlake Business Center-Building 17	155	47% at 11 AM	82

4.5 Overall Overlake Peak Parking Occupancy

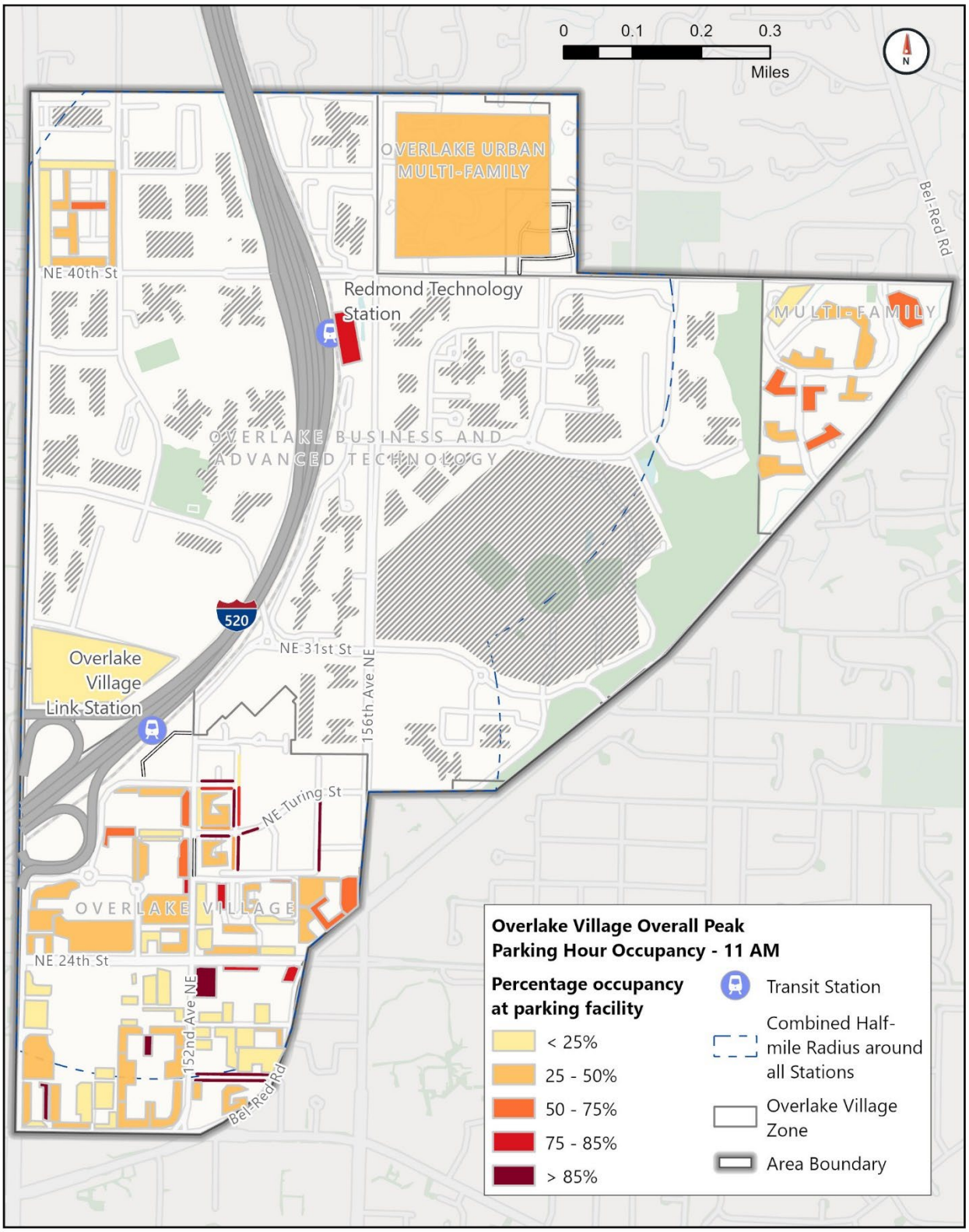
Figure 26 shows the combined occupancy for both on- and off-street parking spaces at 11 AM.

Table 18 shows a summary of on-street and off-street public and private parking spaces during peak parking occupancy and available spaces to park during peak hour.

Table 18: Summary of Parking Occupancy — Overlake Village

	On-street			Off-street		
Type	**Total Spaces**	**Peak Parking Occupancy**	**Available Spaces at Peak Hour**	**Total Spaces**	**Peak Parking Occupancy**	**Available Spaces at Peak Hour**
Public	134	83%	21	579	62%	2,301
Private	NA	NA	NA	6,056	35%	376

Figure 26: Overall Peak Parking Hour Occupancy — Overlake Village

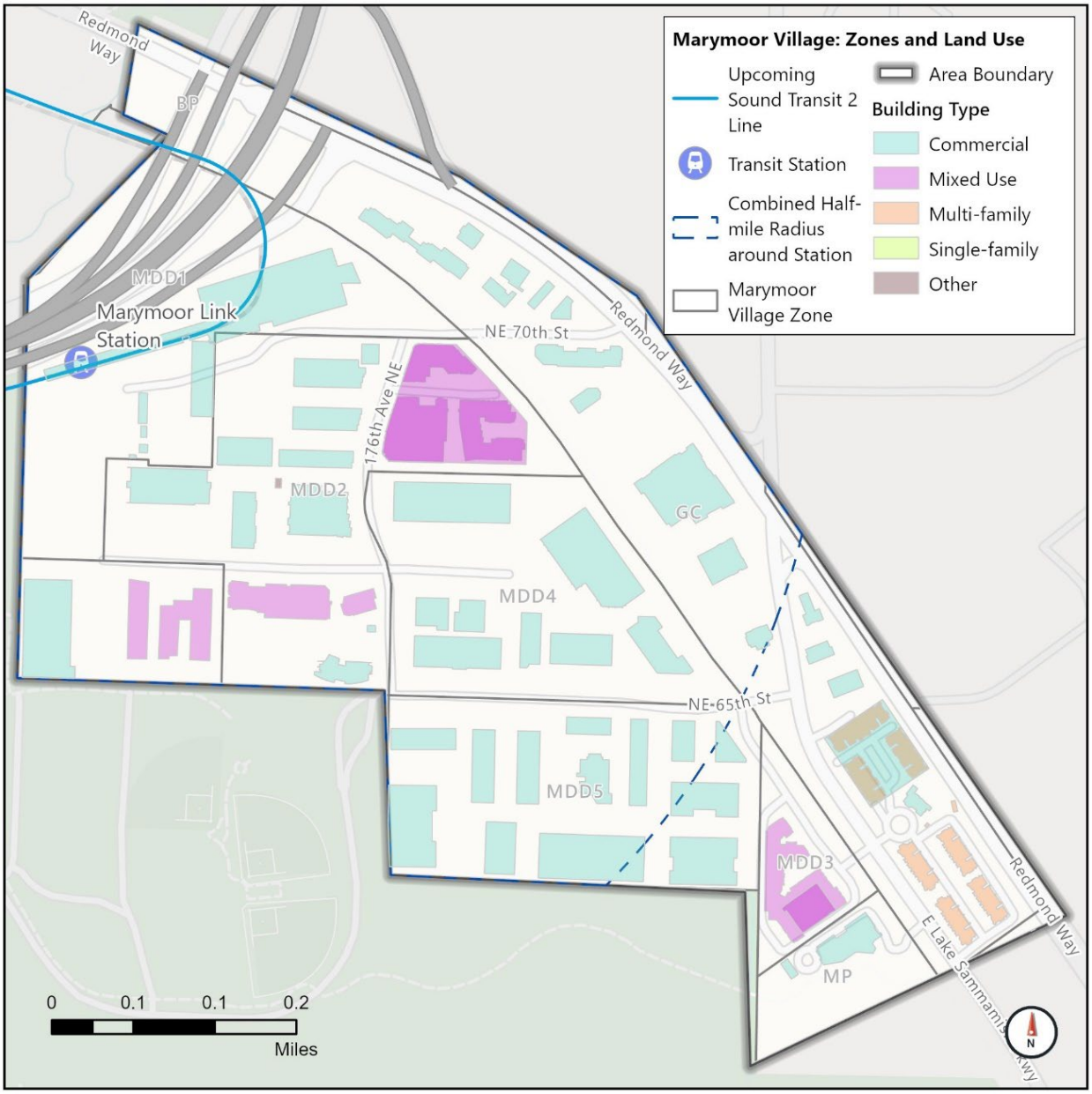


5. Marymoor Village

5.1 Marymoor Village

Marymoor Village is the smallest of the three neighborhoods included in this study. It is located between Downtown in the north and Overlake Village in the south. SR 520 runs along the northern boundary, Redmond Way along the eastern side, and the West Lake Sammamish Parkway along the western edge (Figure 27). The southern border of Marymoor Village is a large King County operated park.

Figure 27: Marymoor Village, Redmond



Development is mostly restricted to the northeast region, which is transitioning to a mix of office buildings, small businesses, and commercial operations in an area that has been predominantly industrial. The 2 Line extension has one station in Marymoor Village that can be considered as a middle point between Overlake Village and Downtown.

5.2 Marymoor Village Overall Parking Inventory

Marymoor Village is the smallest of the three areas and consequently also has the least parking capacity, with a total of 3,028 parking spaces distributed between on-street and off-street locations and facilities, as shown in Figure 28. Referring back to Figure 27, most of the neighborhood caters to commercial land use types, with a few mixed used properties, and apartment buildings in the southeastern end.

Table 19: Total Parking Inventory — Marymoor Village

Parking Type	No. of Locations	No. of Parking Spots	Percent of Overall Parking Supply
On-street	14	216	7%
Off-street	49	2,812	93%
Public	*1*	*77*	*3%*
Private	*48*	*2,735*	*90%*

Note: Two off-street public facilities, Sound Transit Garage (1,403 spaces) and Redmond Community Center (76 spaces), were under construction or inaccessible during this survey. Refer to the map on the next page for their locations.

Marymoor Village On-Street Parking

5.2.1 On-street Inventory

Marymoor Village has 216 on-street spaces for parking.

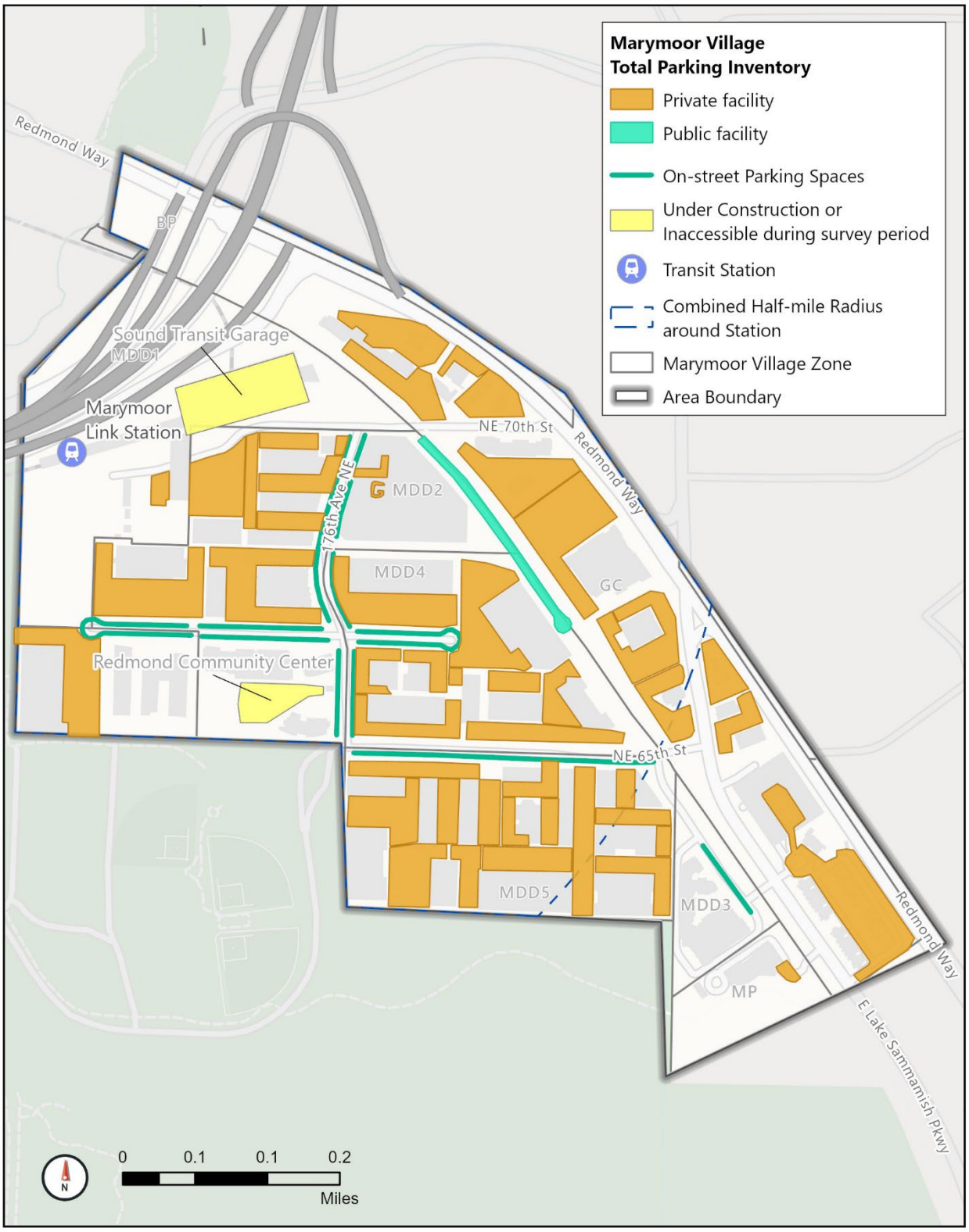
Table 20 shows that 180 open spaces are unrestricted, meaning that they do not have any limitations. Thirty-six spaces were unavailable for parking at the time of this survey due to construction-related activities and are left out of further analysis.

Table 20: On-street Parking Inventory by Type – Marymoor Village

Parking space type	Number of spaces	Percent of total
Unrestricted parking	180	83%
Under construction	36	17%
Total inventory	**216**	**100%**

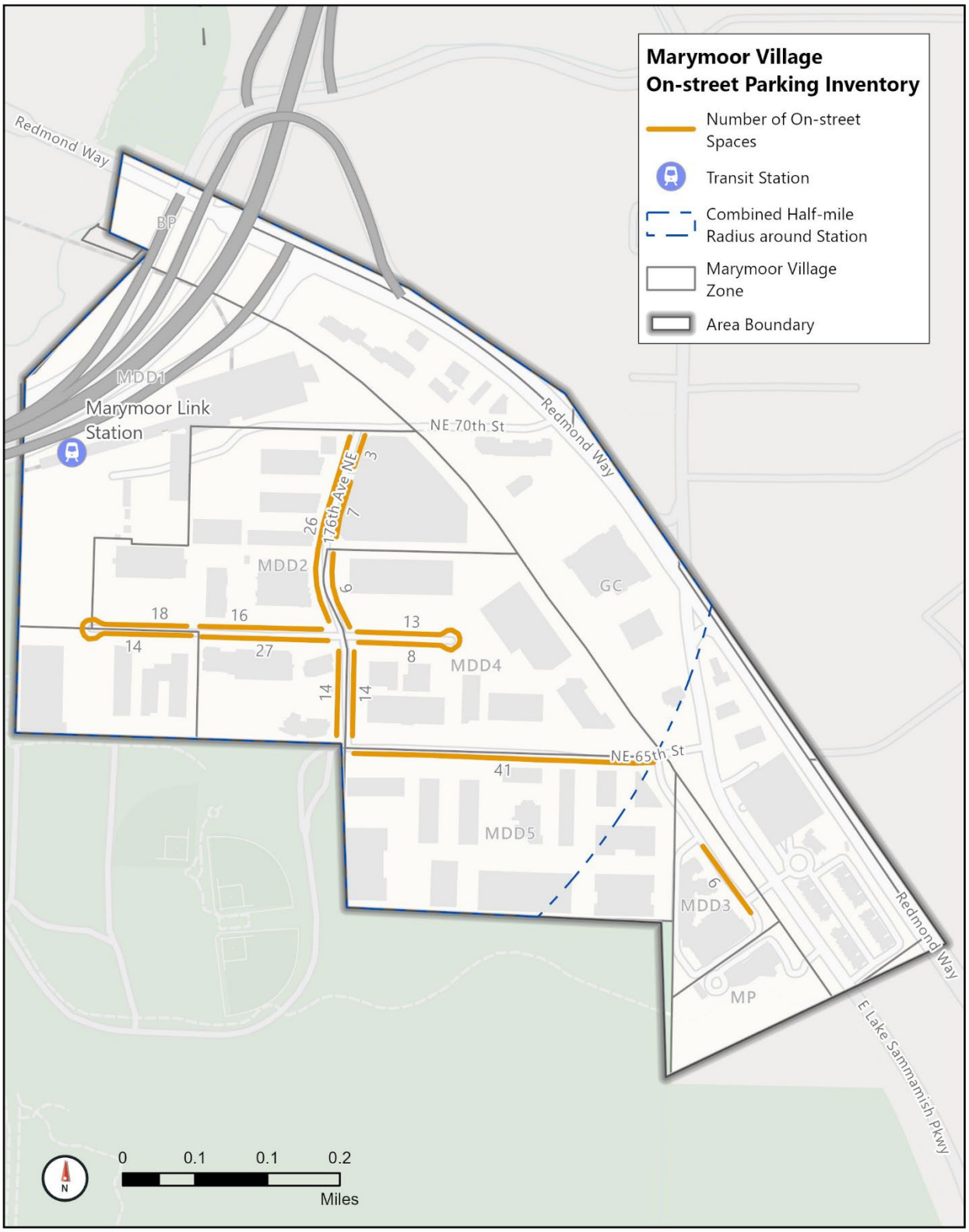
Figure 29 shows the distribution of the 180 on-street spaces in the area on commercial streets.

Figure 28: Total Parking Inventory — Marymoor Village



Note: Sound Transit Garage near SR 520 is marked as "Under Construction"; when this survey was conducted in late 2024, the 1,403 spaces at that location were not yet open to the public. Similarly, 76 spaces at Redmond Community Center were inaccessible for this survey.

Figure 29: On-street Parking Inventory — Marymoor Village



5.2.2 On-street Occupancy

Figure 30 shows the average occupancy across all on-street spaces during the survey period from 9 AM to 8 PM. While both Downtown and Overlake Village had more than 50% occupancy, here the levels are much lower — nearly half in the morning, peaking at 50% at 11 AM, and then reaching low occupancy after 3 PM, hovering around 15% for the remainder of the period.

Figure 30: On-street Parking Spaces Occupancy – Marymoor Village

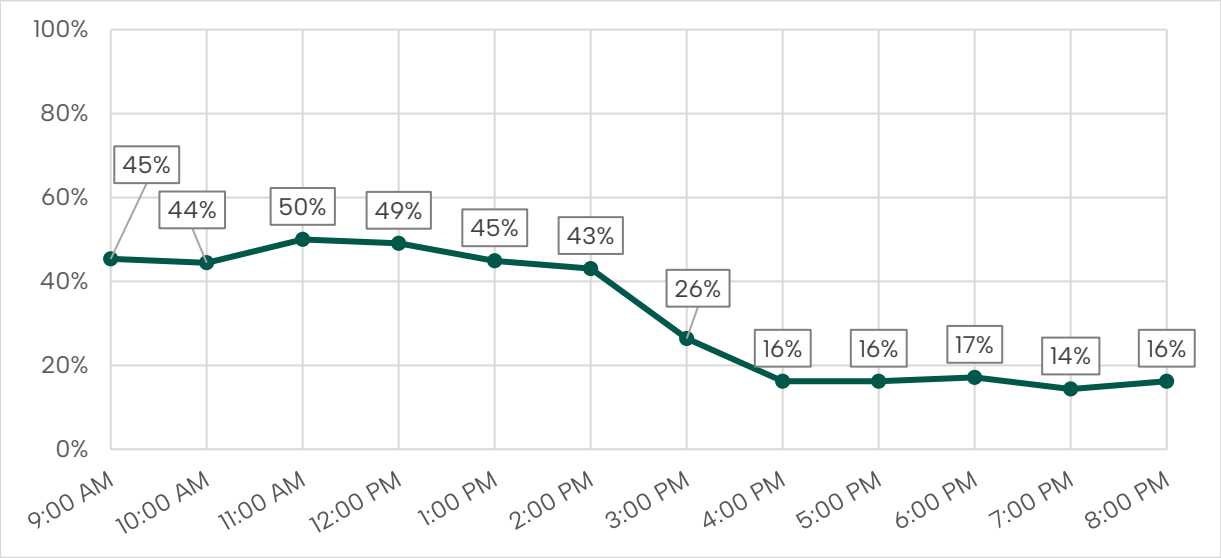


Figure 31 shows the spatial distribution of occupancy at peak parking hour, 11 AM. The collection of spaces closer to the upcoming 2 Line station is noticeably emptier and worth keeping in mind while planning for timed parking restrictions.

Street segments observed at 11:00 AM to be above 85% occupancy were:

- Both sides of NE 67th Court
- Both sides of 176th Avenue NE
- Westside of 180th Place NE

5.2.3 Turnover Rate

While Overlake Village had unrestricted parking but a high turnover rate (Section 4.3.3), it can be seen in Figure 32 that, in Marymoor Village, the turnover range is smaller (1–10 cars per spot per day) and more spatially varied. Thus, there is generally less efficient usage of on-street spaces in this area and vehicles may be parked for longer durations.

Figure 31: On-street Peak Parking Hour Occupancy — Marymoor Village

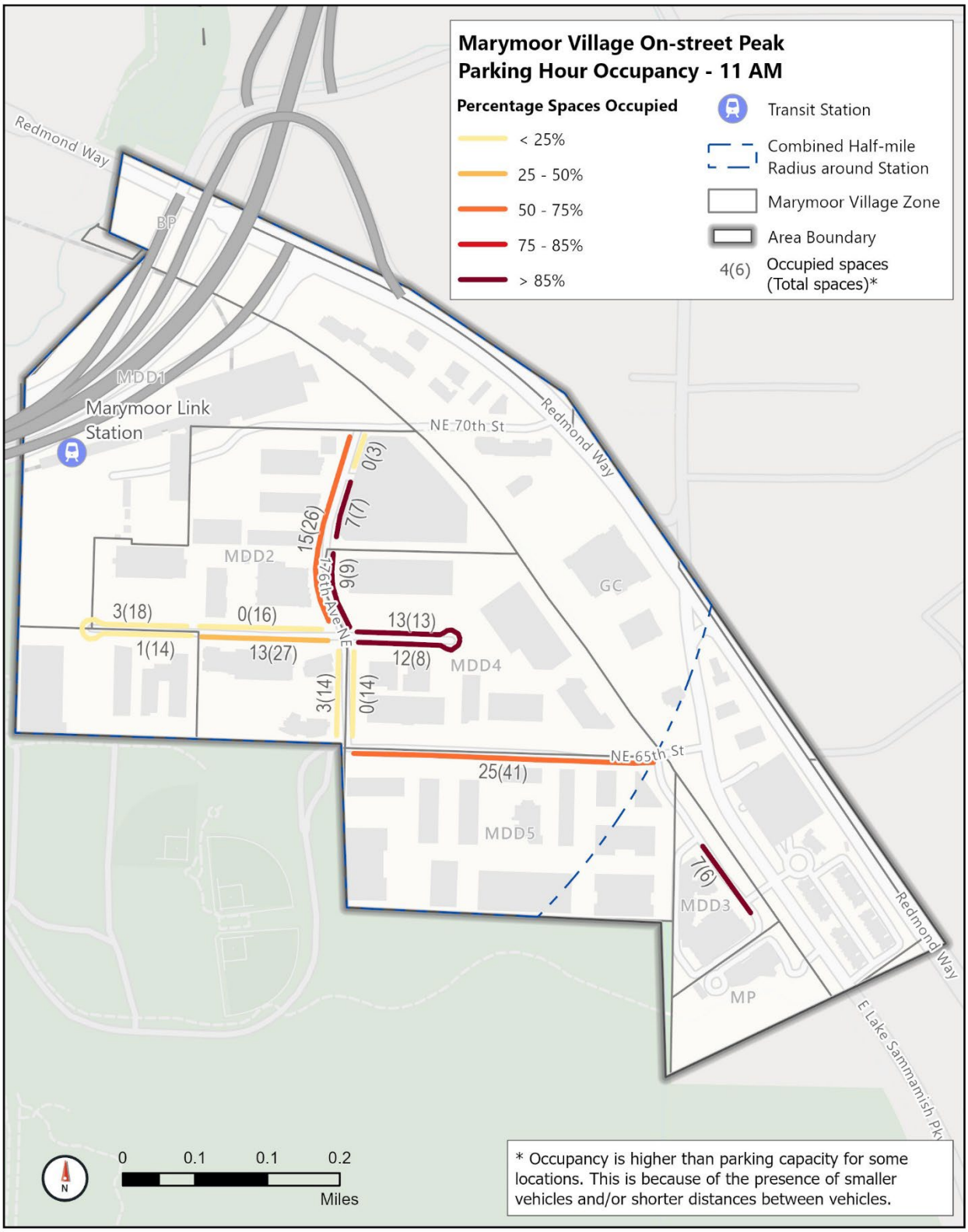
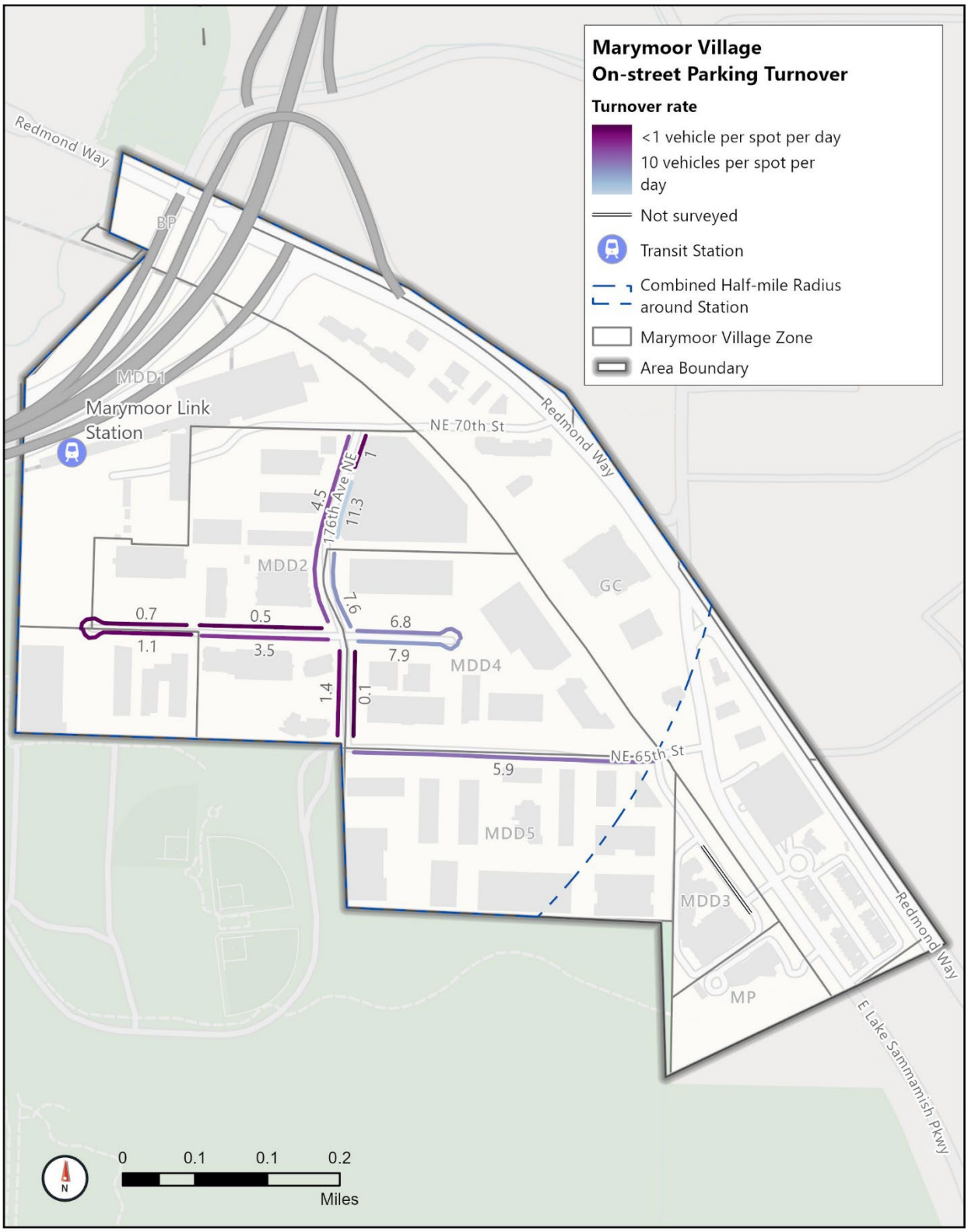


Figure 32: On-street Parking Turnover — Marymoor Village

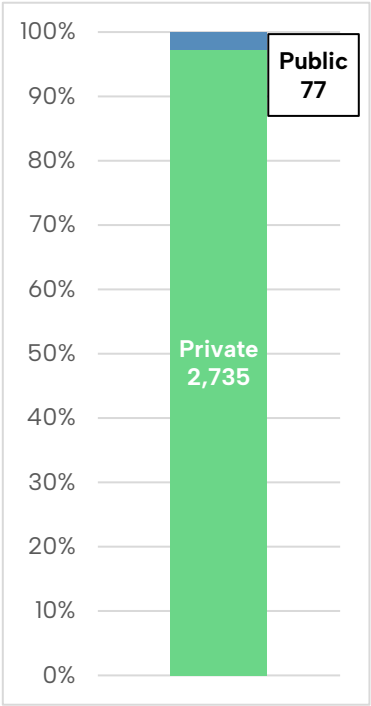


5.3 Marymoor Village Off-Street Parking

5.3.1 Off-street Inventory

Similar to Downtown and Overlake Village, most parking availability in Marymoor Village is in off-street facilities — 2,812 spaces, compared to 180 on-street ones. Put another way, for every on-street space there are about 15 off-street spaces. Similarly, the ownership of most of these spaces is private, with only 77 or less than 3% of the spaces being provided by public agencies (Figure 33).

Figure 33: Off-street Parking Inventory by Ownership – Marymoor Village



As noted earlier, these totals do not include two public facilities — Sound Transit Garage (1,403 spaces) and Redmond Community Center (76 spaces) — on account of being under construction and inaccessible during the survey, respectively.

5.3.2 Off-street Occupancy

Occupancy at off-street facilities is similar to that at on-street spaces in that the levels are low and go down further as the day progresses. They peak at 50% at 11 AM and go down to 28% at 7 PM. Figure 34 shows that, while private parking follows the overall trend, public parking shows a dramatic increase to 83% occupancy at 7 PM. This could possibly be because the 77 public spaces are in the East Lake Sammamish Trail parking lot, which is likely used for recreational purposes. On the other hand, the north end of this lot is also next to a multi-family housing complex, whose residents may be using this public lot to meet residential parking needs. Figure 35 shows the locations of the facilities. A closer look at the bigger locations point to the diversity of usage — the five biggest lots, each having 150 or more spaces, are at uses including Whole Foods, the Evangelical Chinese Church, Windsor Apartments, and the Muslim Association.

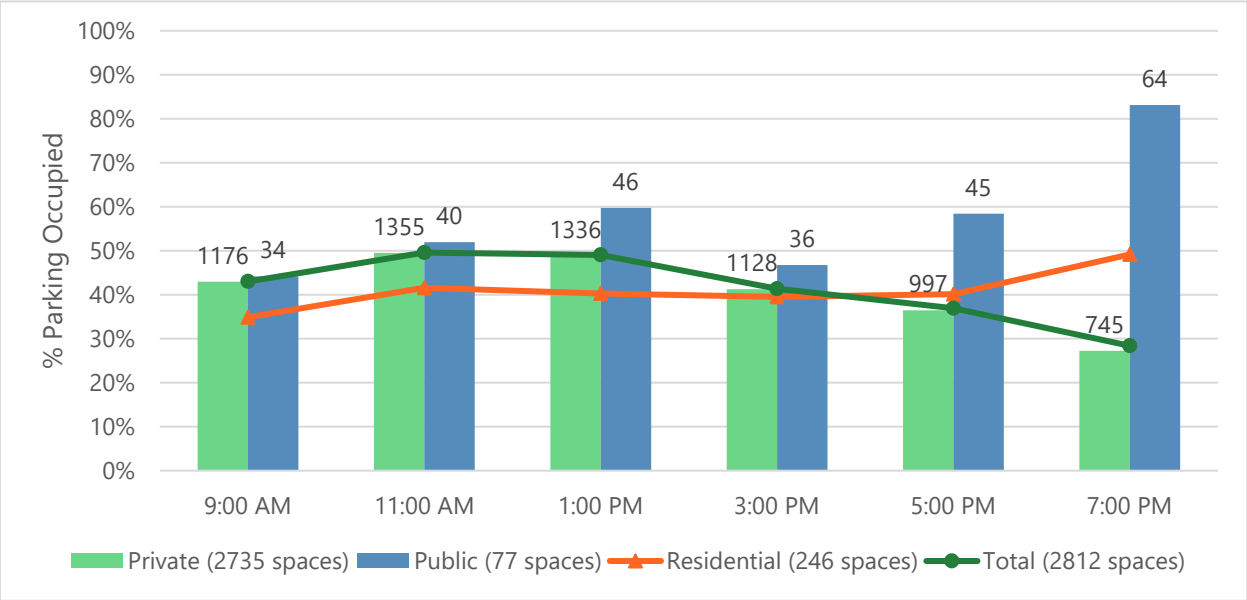
Figure 36 shows the spatial distribution of off-street occupancy at peak hour, 11 AM.

As for the previous two areas, the off-street parking facilities are categorized into Residential, Office, Retail, and Other in Table 21. Like Overlake Village, parking in Marymoor is mostly geared towards retail land use and clients, with occupancy peaking at 54% at 1 pm for this category.

Table 21: Inventory at Peak Hour Occupancy by Land Use — Marymoor Village

Land Use	Inventory	Peak Occupancy
Residential	246	64% at 7 PM
Office	541	44% at 11 AM
Retail (stores, restaurants)	1202	54% at 1 PM
Other (hospital, hotel, public parking, government / public buildings)	823	48% at 1 PM

Figure 34: Off-street Parking Occupancy – Marymoor Village



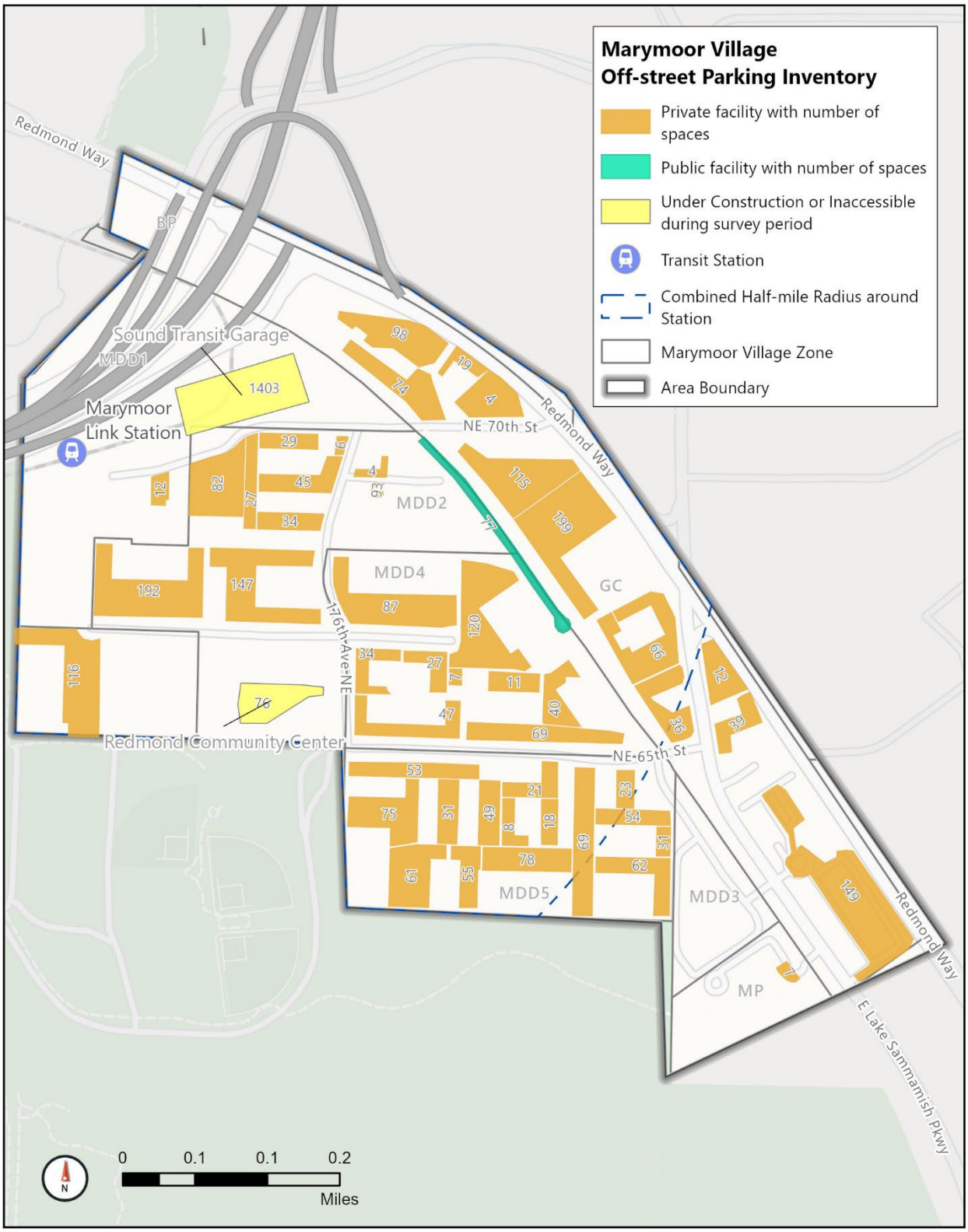
A note on residential parking: Compared to the two other larger study areas, Marymoor Village has only three residential buildings and attached parking facilities. Consequently, they make up a smaller percentage of overall parking capacity (9%). Yet, as the previous chart shows, they follow the same residential occupancy trend.

Finally, Table 22 shows the peak occupancy details of the five largest locations by parking space.

Table 22: Peak occupancy details for five largest locations

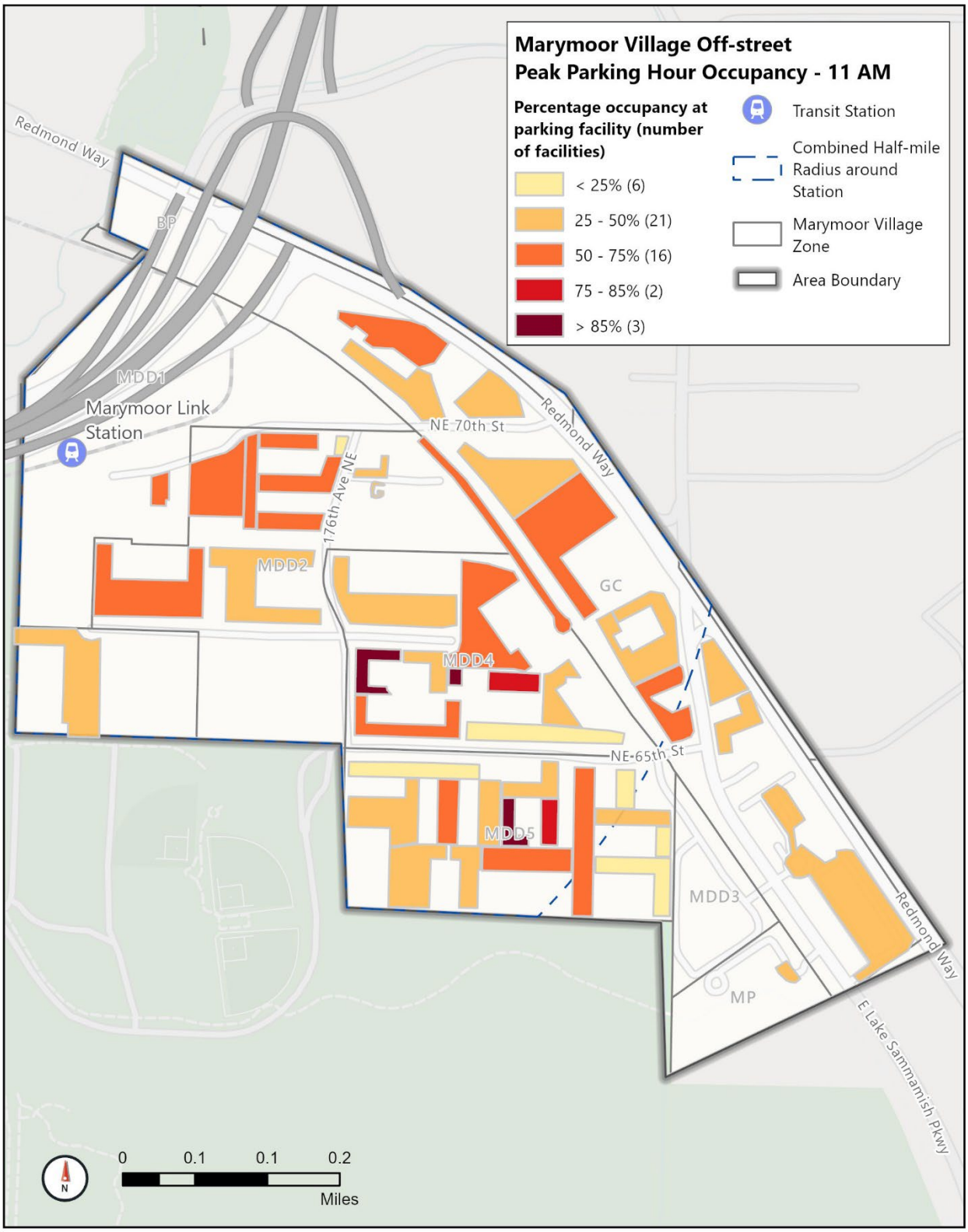
Location	Inventory	Average Peak Occupancy	Available Spaces at Peak Hour
Whole Foods	199	63% at 1 PM	74
Evangelical Chinese Church of Seattle	192	69% at 11 AM	60
Reflections by Windsor Apartments	149	54% at 7 PM	68
Muslim Association of Puget Sound	147	51% at 1 PM	72
17760 NE 67th Ct	120	51% 11 AM	59

Figure 35: Off-street Parking Inventory — Marymoor Village



Note: Two off-street public facilities, Sound Transit Garage and Redmond Community Center, were under construction or inaccessible during this survey.

Figure 36: Off-street Peak Parking Hour Occupancy — Marymoor Village



5.4 Overall Marymoor Village Peak Parking Occupancy

Figure 37 shows the combined occupancy for both on- and off-street parking spaces at 11 AM.

Figure 37: Overall Peak Parking Hour Occupancy — Marymoor Village

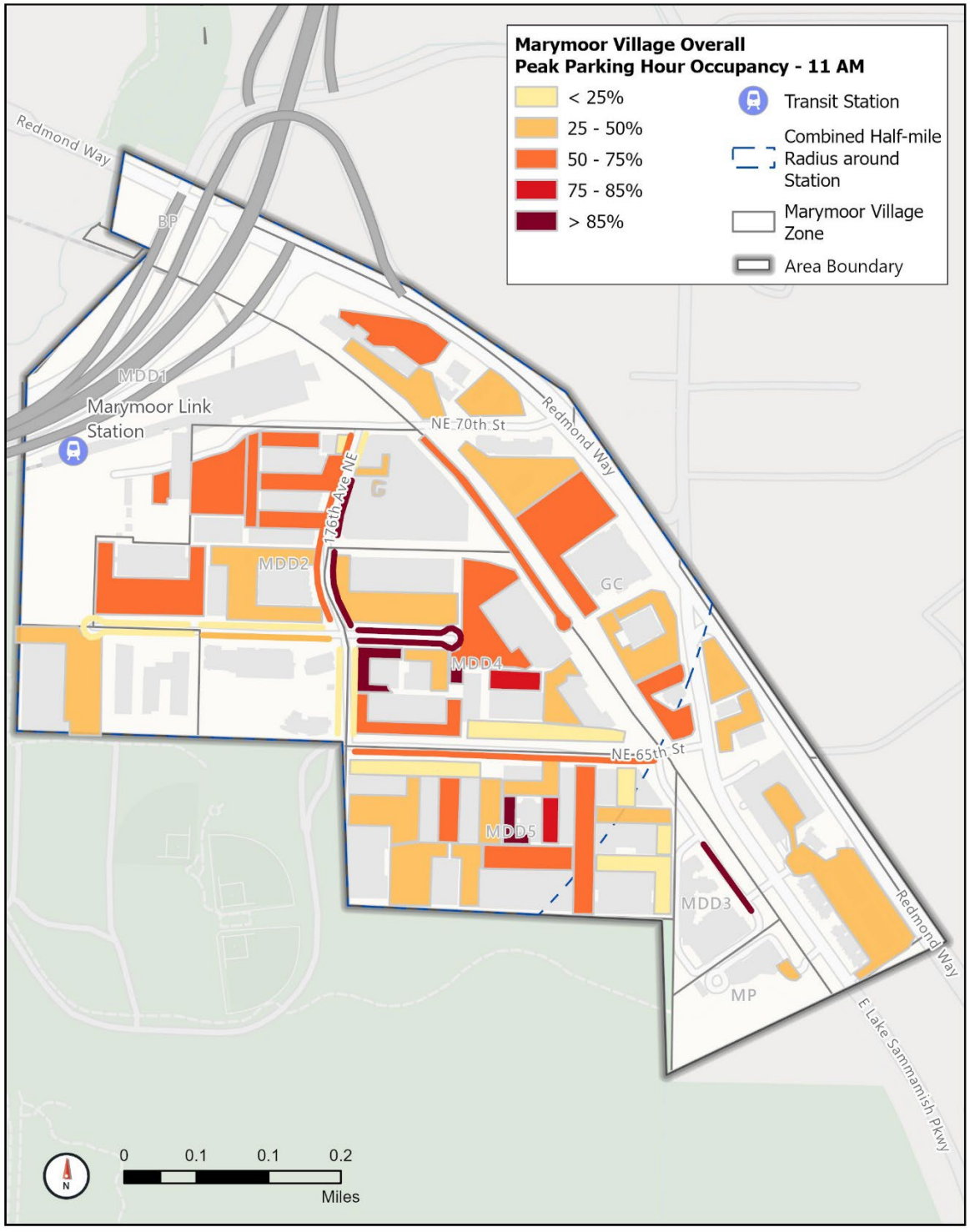


Table 23: Summary of Parking Occupancy — Marymoor Village

	On-street			Off-street		
Type	**Total Spaces**	**Peak Parking Occupancy**	**Available Parking at Peak Hour**	**Total Spaces**	**Peak Parking Occupancy**	**Available Parking at Peak Hour**
Public	216	50%	108	77	83%	13
Private	NA	NA	NA	2735	50%	1368

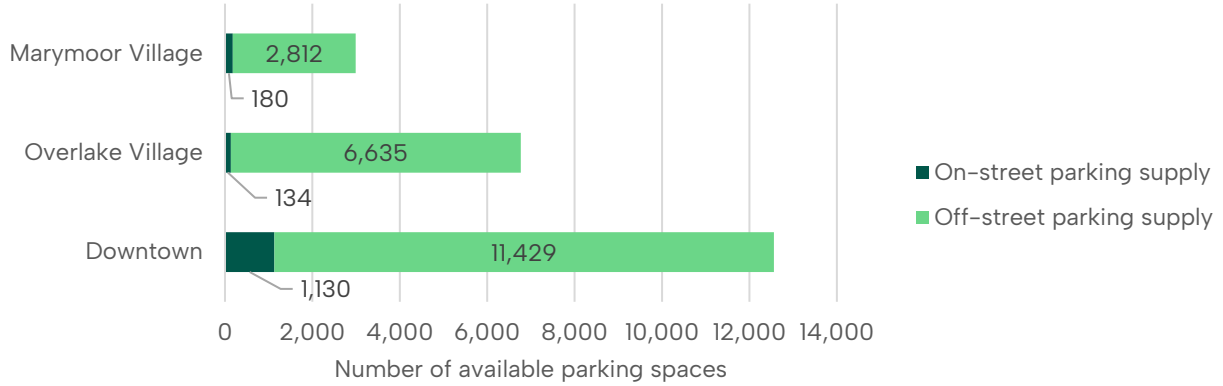
6. Parking Summary for All Three Urban Centers

Table 24: Summary of Parking Stats in Redmond's Three Urban Centers

Type	Downtown	Overlake Village	Marymoor Village	Urban Centers Combined
Total parking spaces surveyed	12,559	6,769	3,028	22,356
Combined Peak Occupancy Average	53%	38%	49%	48%
On-street parking				
Inventory	**1,130**	**134**	**180**	1,444
ADA	*9*	*0*	*0*	*9*
Electric Vehicle	*0*	*0*	*0*	*0*
Loading Zones	*55*	*3*	*0*	*58*
Time Limited	*625*	*0*	*0*	*625*
Peak Occupancy	**70%**	**83%**	**50%**	—
Time of Peak Occupancy	*12:00 PM*	*7:00 PM*	*11:00 AM*	—
Turnover Rate	*<1 – 20 per space*	*4 – 15 per space*	*<1 – 10 per space*	—
Turnover Rate, Average	*7.4*	*10*	*3.9*	
Off-street parking				
Inventory	**11,429**	**6,635**	**2,812**	**20,876**
Public	*885*	*579*	*77*	*1,541*
Private	*10,544*	*6,056*	*2,735*	*13,279*
Peak Occupancy	**46%**	**35%**	**50%**	—
Time of Peak Occupancy	*11 AM – 1 PM*	*11 AM – 1 PM*	*11 AM – 1 PM*	—

Note: 1. This table does not include on-street and off-street spaces that were not surveyed, either due to lack of access or because they were under construction (e.g.: Sound Transit garage with 1,403 spaces in Marymoor.
2. This study does not include parking facilities owned/managed by Microsoft.

Figure 38: Number of Parking Spaces in the Three Study Areas



For all three urban areas, Table 25 shows a summary of peak parking occupancy by land-use; Table 26 shows a summary of parking inventory, peak occupancy, and available spaces in residential buildings; Table 27 shows a summary of inventory and peak occupancy of EV spaces; and Table 28 shows a summary of public parking inventory and peak occupancy.

Table 25 Summary of Parking Occupancy by Land-use

Land use type	Downtown	Overlake	Marymoor Village
Residential	45%	53%	64%
Office	51%	40%	44%
Retail (stores, restaurants)	48%	35%	54%
Other (hospital, hotel, public parking, public buildings)	53%	32%	48%

Table 26: Summary of Residential Off-street Parking Occupancy

Area	Number of Buildings Inventoried	Inventory	Peak Occupancy	Remaining Capacity
Downtown	19	1,861	45%	1,024
Overlake	15	1,590	53%	747
Marymoor Village	3	246	49%	125

Table 27: Summary of EV parking and Occupancy

Area	Public inventory	Private inventory	Public peak hour occupied spaces	Private peak hour occupancy
Downtown	16	38	16 at 9 AM and 11 AM	30 at 9 AM and 11 AM
Overlake Village	12	NA	10 at 1 PM	NA
Marymoor Village	NA	8	NA	2 from 11 AM – 7 PM

Table 28: Summary of Public Parking Inventory and Utilization

Area	Number of public facilities	Total number of spaces	Peak parking occupancy
Downtown	3	885	78%
Overlake Village	2	579	68%
Marymoor Village	2	77*	83%

* Does not include 1,403 spaces in the Sound Transit garage (under construction during survey) and 76 spaces in the Redmond Community Center (inaccessible during the survey).

ADA spaces

Based on the survey, out of the three study areas only Downtown has designated on-street ADA parking spaces. There are 9 ADA spaces, making up 0.8% of the on-street parking supply in the area.

7. Big Data Insights

AZIRA Data was utilized to gain supplemental understanding of visitor patterns in the urban centers of Downtown, Marymoor, and Overlake. AZIRA, formerly known as Near, is a big data tool which utilizes cellphone data to provide metrics on the origins and destinations of people within an area. Due to the utilization of cellphone data, this analysis can include walking or biking trips as well. AZIRA provides this data as "Consumer Behavior Data," which is geo or spatial data coming from smartphone users that opt-in to share their locations on mobile apps. When a user opts in to share their location data, their phone collects data and shares it with the app publisher companies, who often have partnerships with big data companies such as AZIRA. AZIRA anonymizes this data and provides it to consultants and government agencies to help them understand travel behaviors and markets. This big-data review aims to analyze travel behavior by examining travel activity throughout the day and across different months of the year. By identifying trip origins and key destinations, as well as the primary routes taken to and from these urban centers, this big data review provided provides insights into the parking activity of residents, employees, customers, and other visitors. Additionally, AZIRA provides a brief profile on visitor demographics, based on U.S. Census Bureau Data.

7.1 Method

This analysis was aggregated and anonymized to understand trips taken from January 1st, 2024, to December 31st, 2024. Each type of analysis is aggregated in different ways, which are described in the bullet points below.

- **Visitation**: Provides observation points based on a mobile device's reported GPS coordinates. It is divided into drop-offs and pick-ups, but provides no additional information on demographics, visitation time or date, or other information about the traveler. These observations are used by AZIRA to define a "Visitor." Figures 38-40 show visitation maps for the three urban centers.

- **Day of the Week/Time of Day Visitation**: Provides percentage of mobile devices observed within each of the three urban centers aggregated by day of the week/time of day. Figures 41-43 show day of week and time of day visitation for the three urban centers.

- **Visitor Origin Points**: Provides a proxy for a visitor's "Home" location by using an algorithm to show where a visitor's device is approximately based during the evenings. This data is only provided as a point value and provides no additional identifying information. Figures 44 – 46 show visitor origin points for the urban centers.

- **Visitor Pathing**: Provides snapshot observation points 30 minutes before and after a visit to the analysis polygon. This does not track the entirety of the trip and only provides two location points. Figures 47 – 49 show visitor pathing for the three urban centers.

- **Demographics:** Visitor demographics are drawn from household-level Census demographic data of actual visitors to the location. A weighted average of demographics is calculated based on the number of visitors with a common evening location in a census block group. Figure 50 – 52 show demographics for the three urban centers.

7.1.1 Visitation

- **Downtown** – Most visitors focus on the commercial corridor along Redmond Way and NE 76th Street. Bear Creek Parkway in the southern Downtown also attracts significant visitors.
- **Overlake** – The busiest areas are near 152nd Avenue NE and NE 24th Street, along with commercial spots on 148th Avenue NE.
- **Marymoor** – Visitor activity is highest west of Redmond-Fall City Road NE, including multifamily units between Lake Sammamish Parkway NE.

Figure 39: Heat Map of Visitation – Downtown

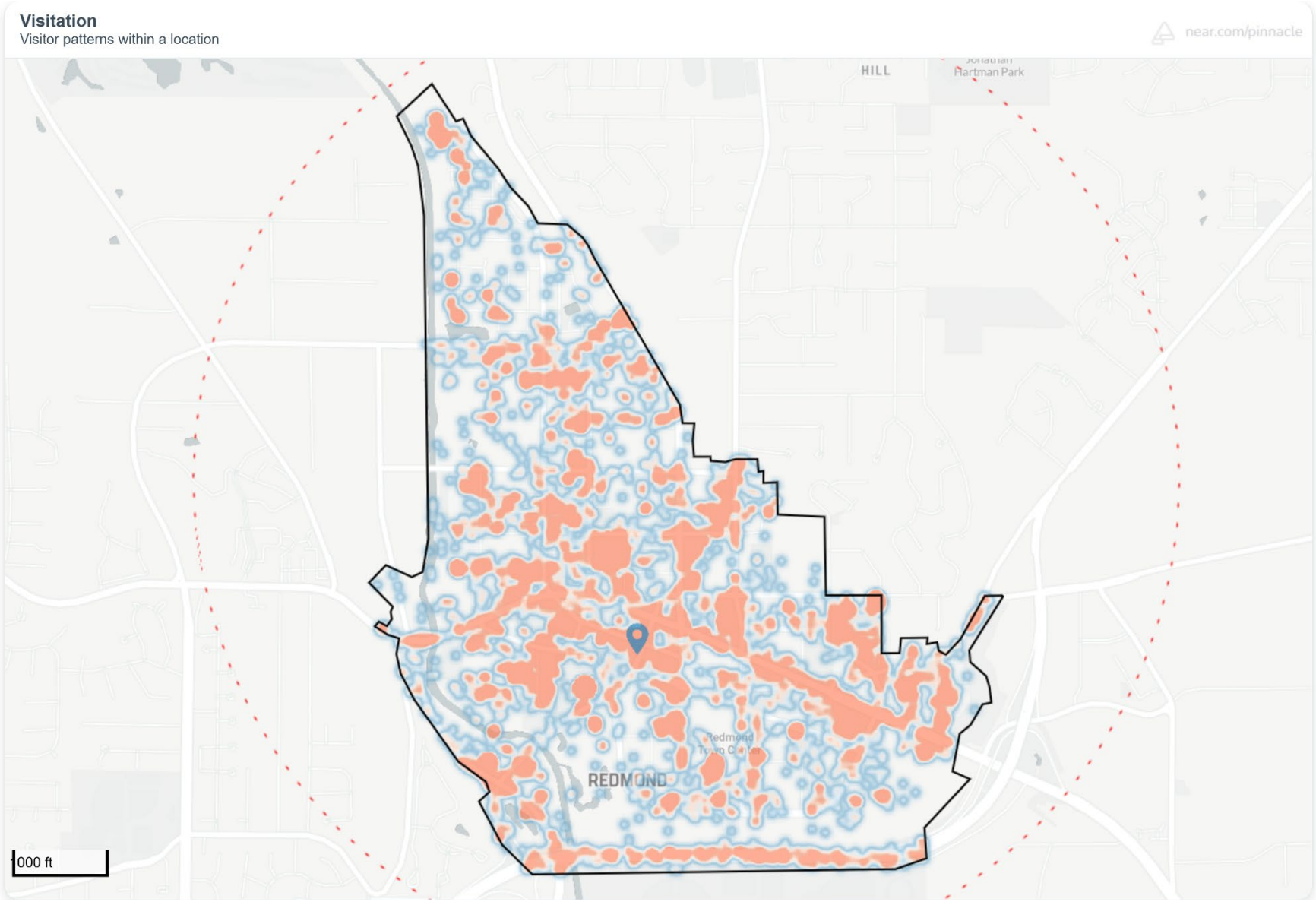


Figure 40: Heat Map of Visitation – Overlake

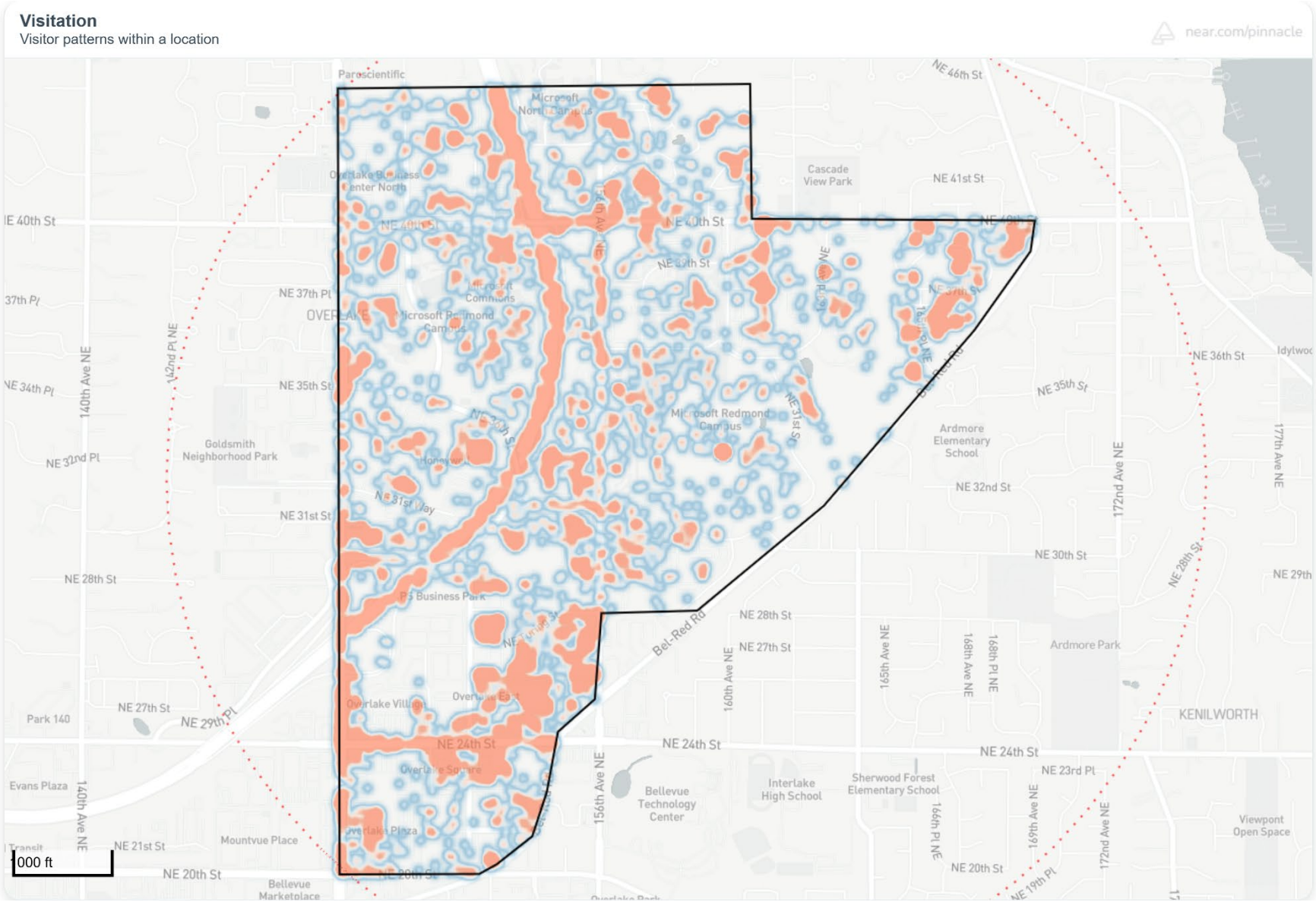
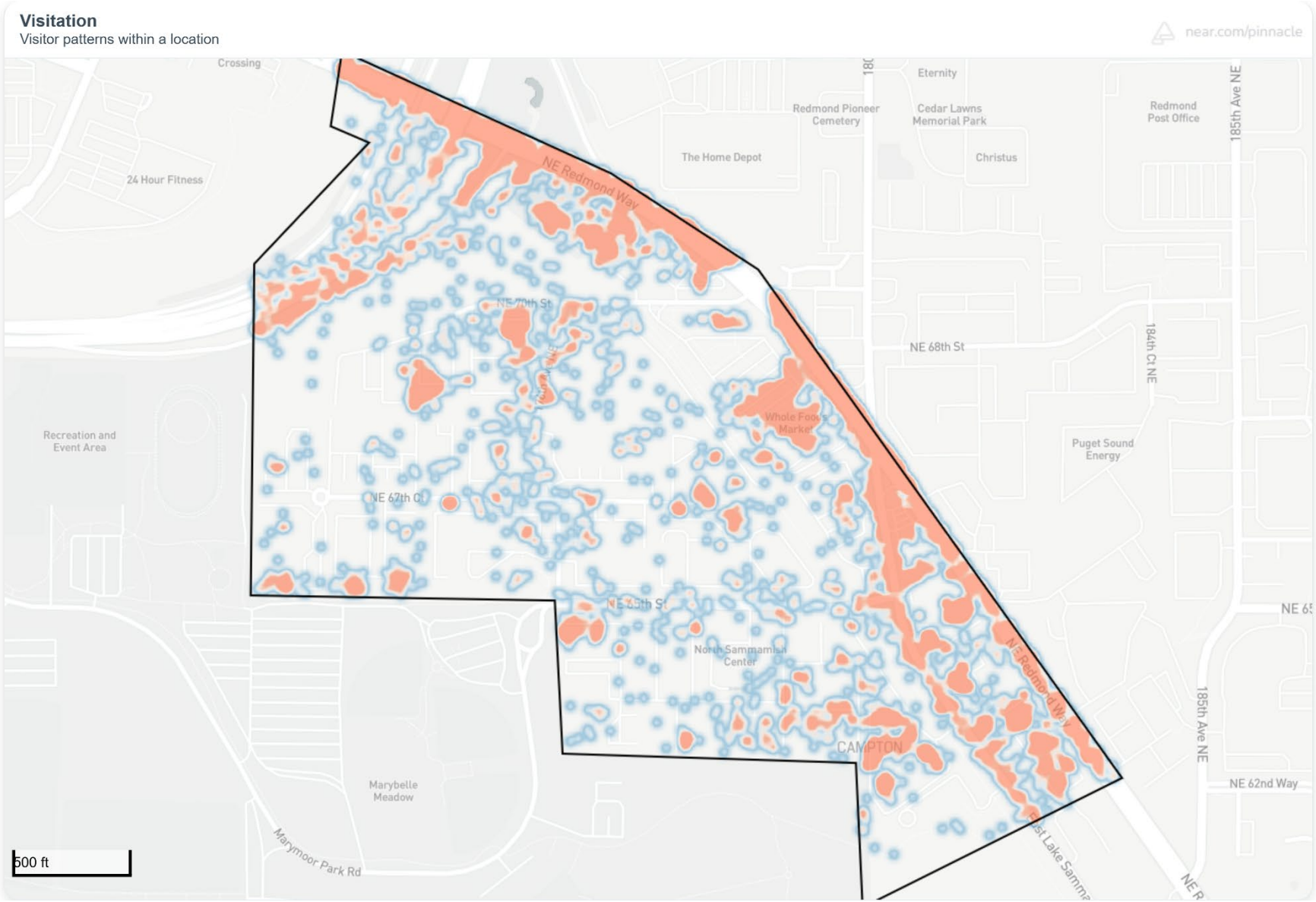


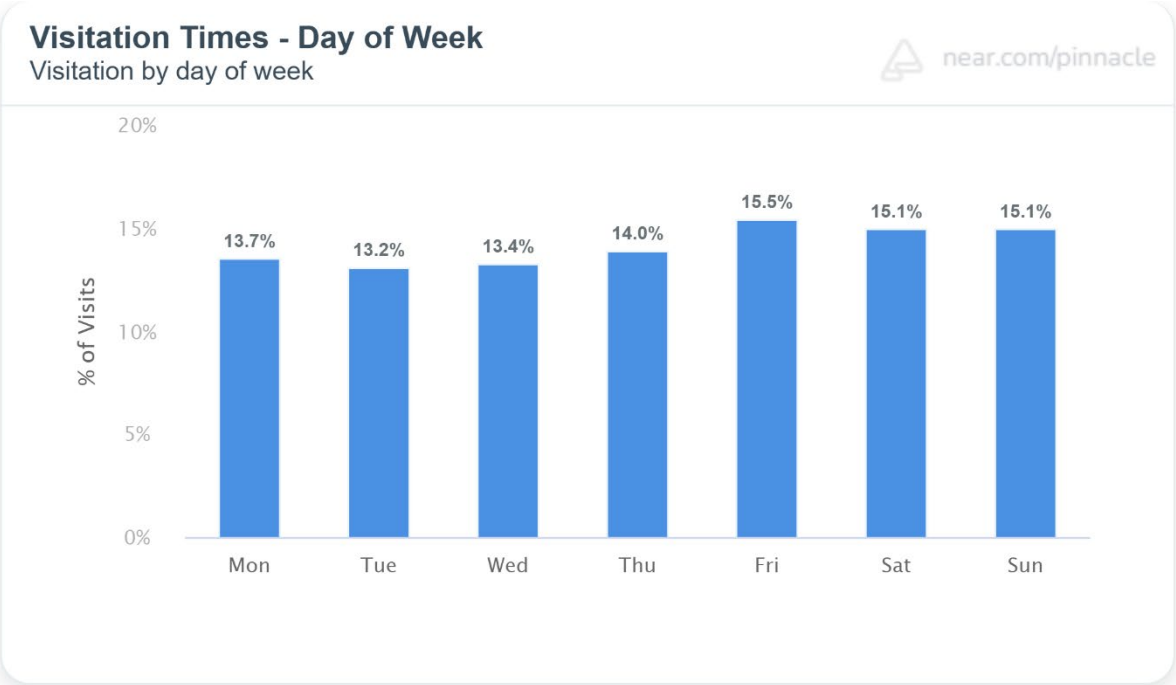
Figure 41: Heat Map of Visitation – Marymoor



7.1.2 Day of the Week/Time of Day Visitation

- **Downtown –** Visitor arrivals are evenly distributed throughout the week, but Friday to Sunday attract more visitors for commercial activities like retail, dining, and entertainment. Peak period of visitation is 3:00 PM – 8:00 PM.
- **Overlake –** Mondays and Tuesdays see higher visitation driven by Microsoft and other offices, peaking between 10:00 AM and 1:00 PM.
- **Marymoor:** Higher visitation on Monday and Tuesday due to its commercial industrial use, with peak hours from 3:00 PM to 7:00 PM.

Figure 42: Time of Day and Day of Week – Downtown



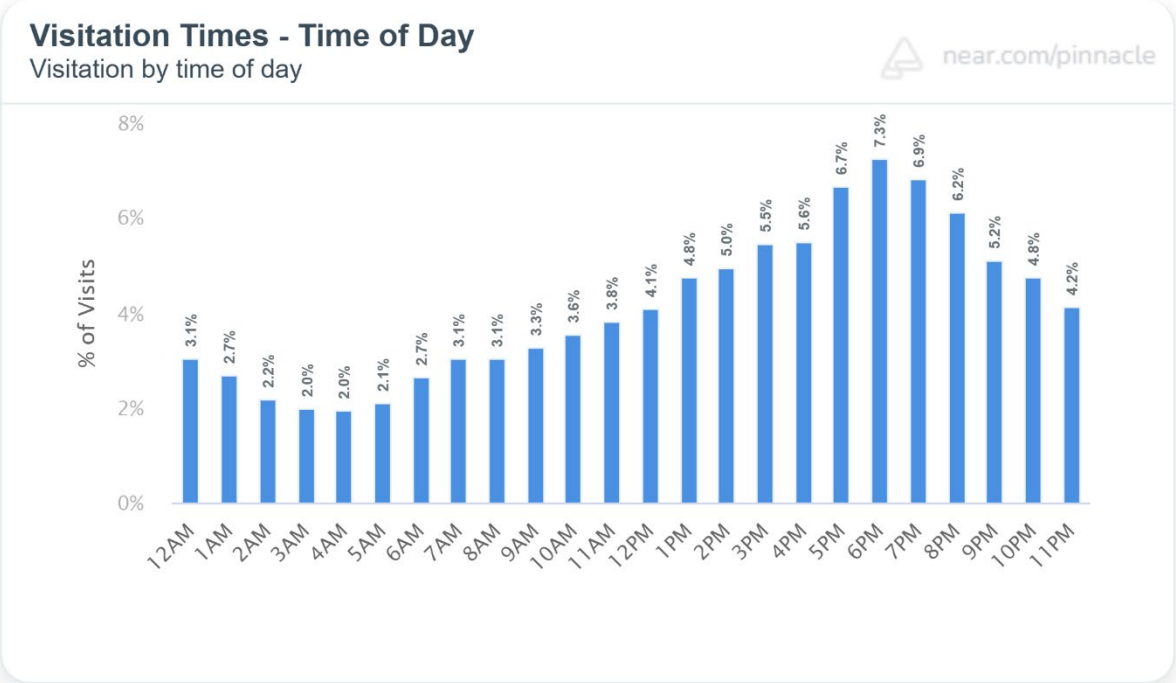
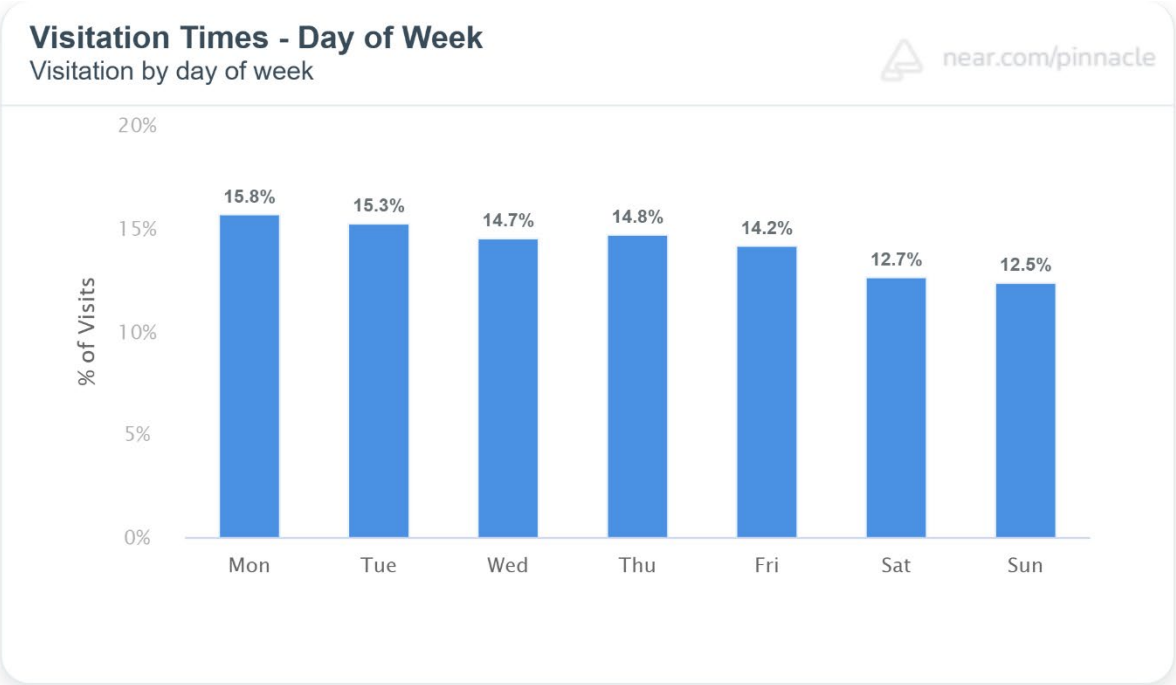


Figure 43: Time of Day and Day of Week – Overlake Village



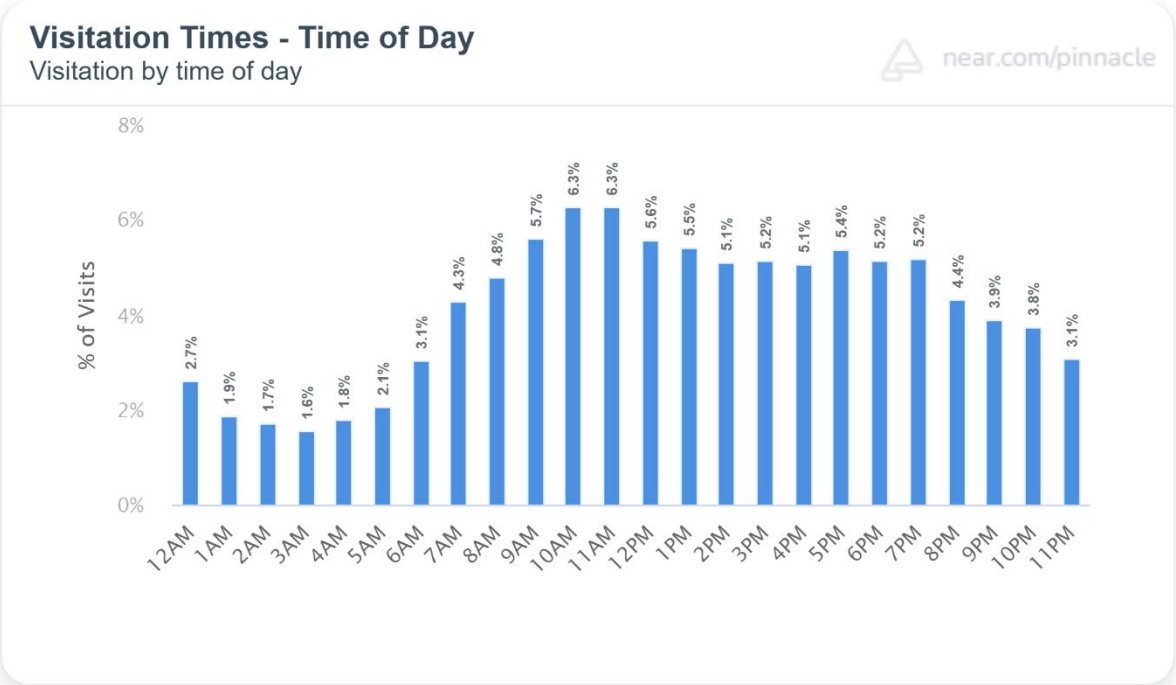
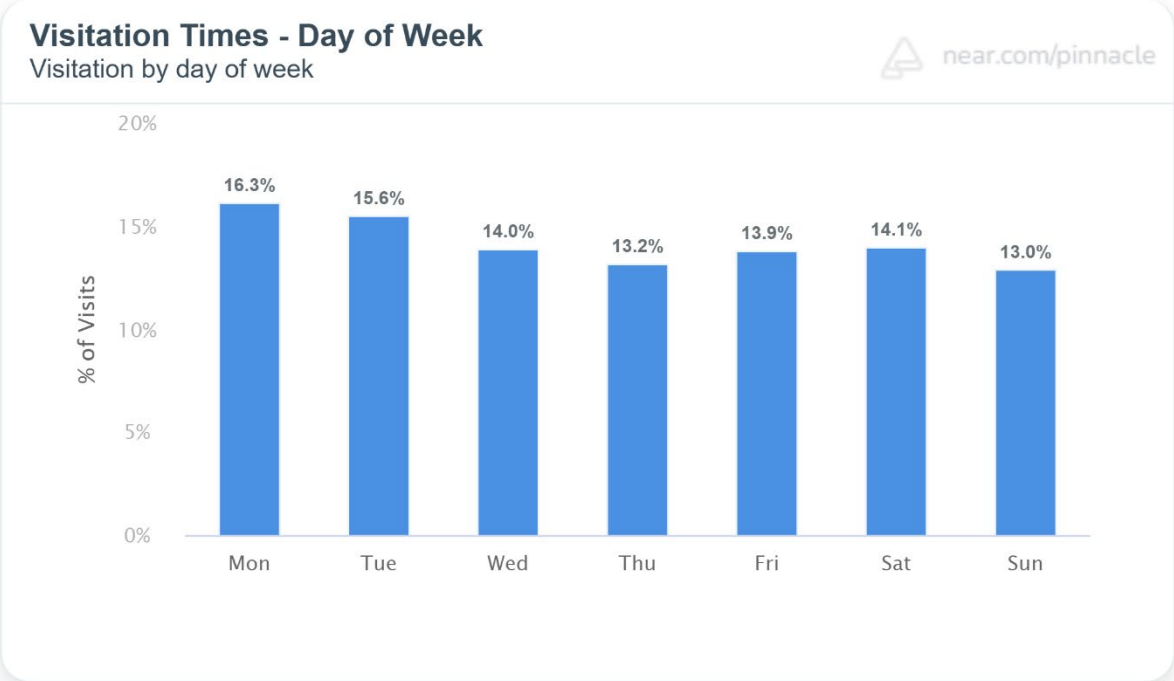
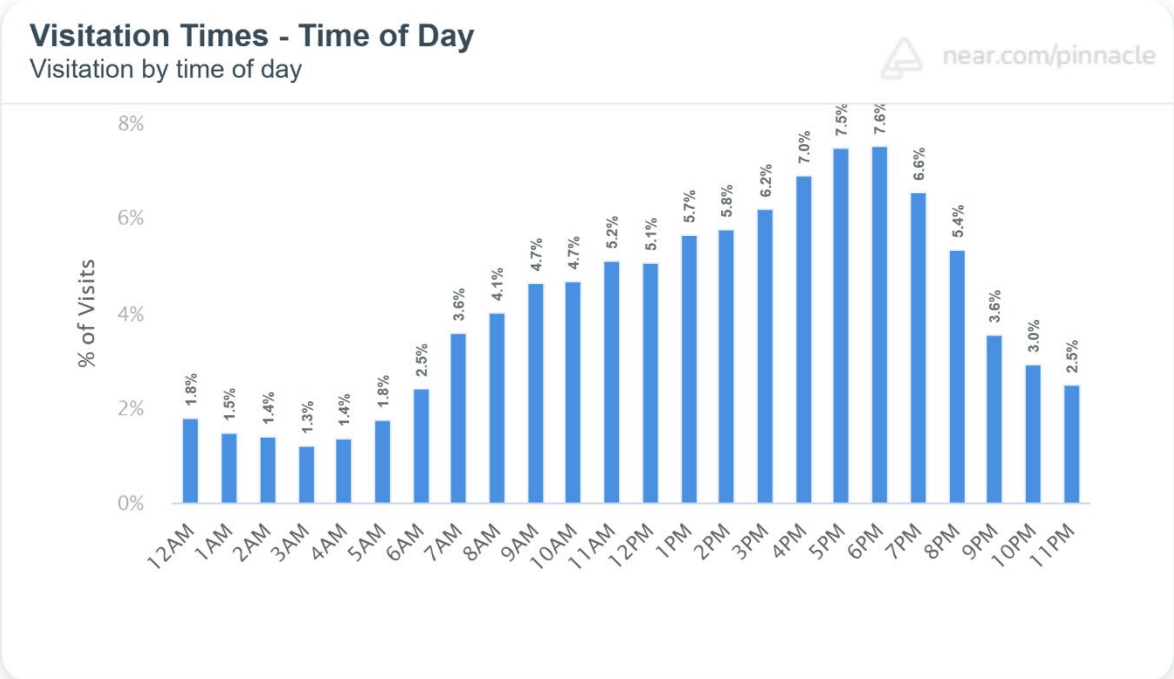


Figure 44: Time of Day and Day of Week – Marymoor Village





7.1.3 Visitor Origin Points

- **Downtown –** Primary origin areas within a 5-mile radius of downtown include residential communities situated northeast of Downtown (Education Hill) and southwest of Downtown.

Beyond the 5-mile radius, notable origin clusters encompass Bellevue, Seattle, and Sammamish.

- **Overlake –** The majority of visitor trips to the Overlake district originate within a 5-mile radius surrounding the district. Key areas include Downtown Redmond, Bellevue, and Sammamish. Outside the 5-mile radius, significant origins include Seattle and residential communities in northeast Kirkland such as Kingsgate and Oskams Corner.
- **Marymoor –** A considerable number of trips to Marymoor originate within a 5-mile radius from Downtown Redmond, the Overlake District of Redmond, and Bellevue and Sammamish communities. Beyond the 5-mile radius, primary origin clusters include Seattle, Issaquah, and Duvall.

Figure 45: Visitor Origin Points – Downtown

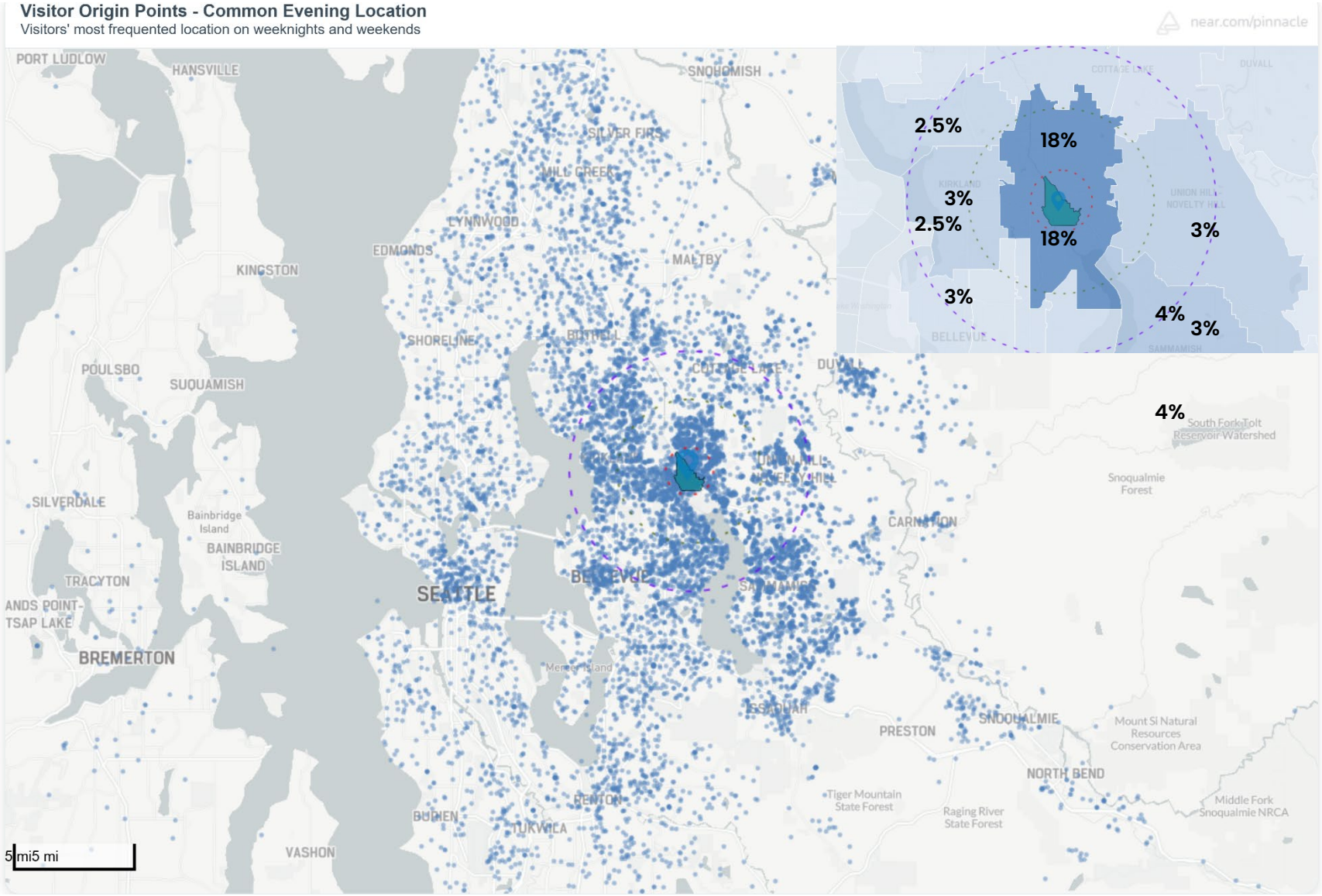


Figure 46: Visitor Origin Points – Overlake

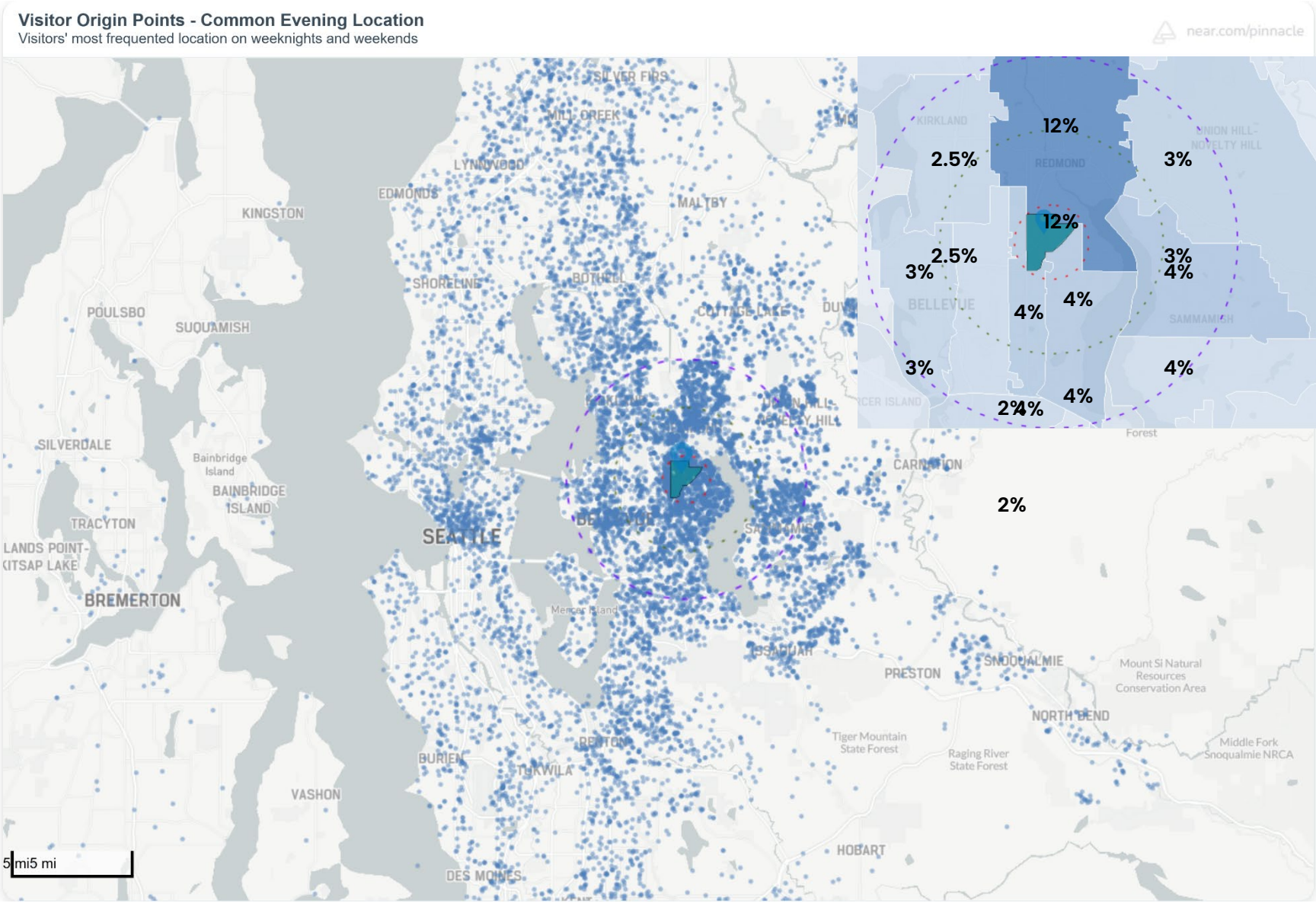
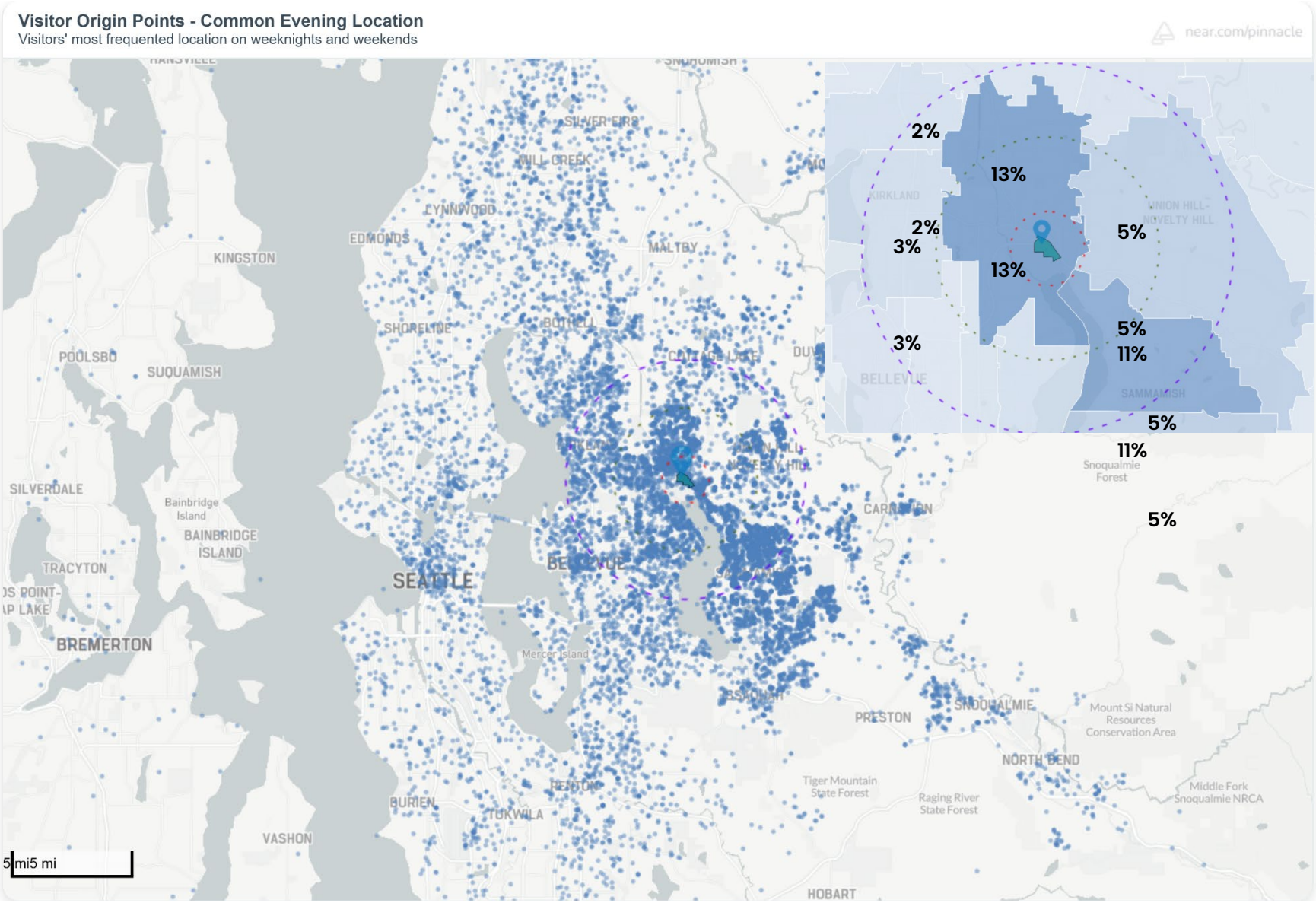


Figure 47: Visitor Origin Points – Marymoor



7.1.4 Visitor Travel Paths

Visitor travel paths for each district primarily use regional roads such as freeways, highways, and arterials.

Figure 48: Visitor Travel Path Heat Map – Downtown

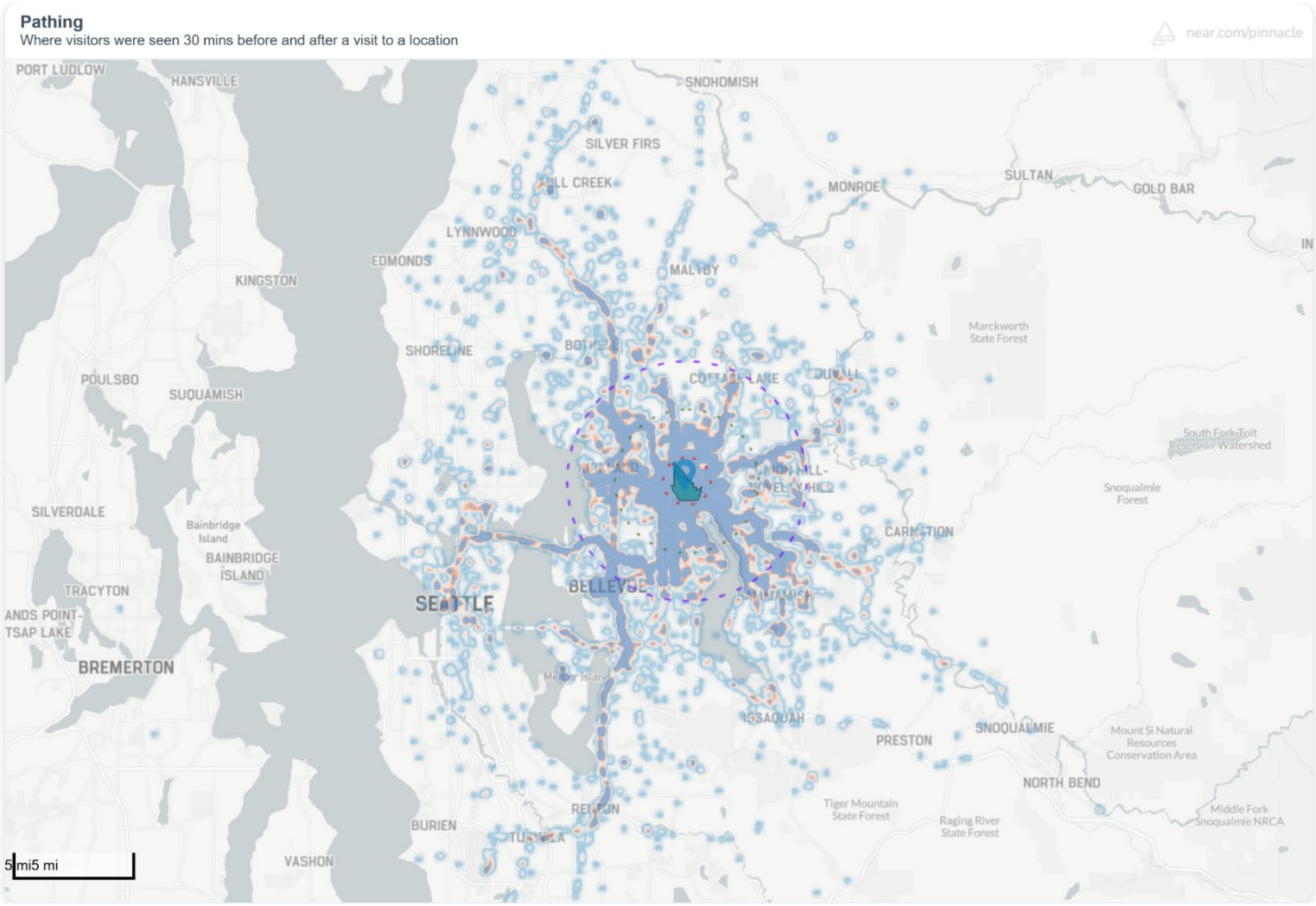


Figure 49: Visitor Travel Path Heat Map – Overlake

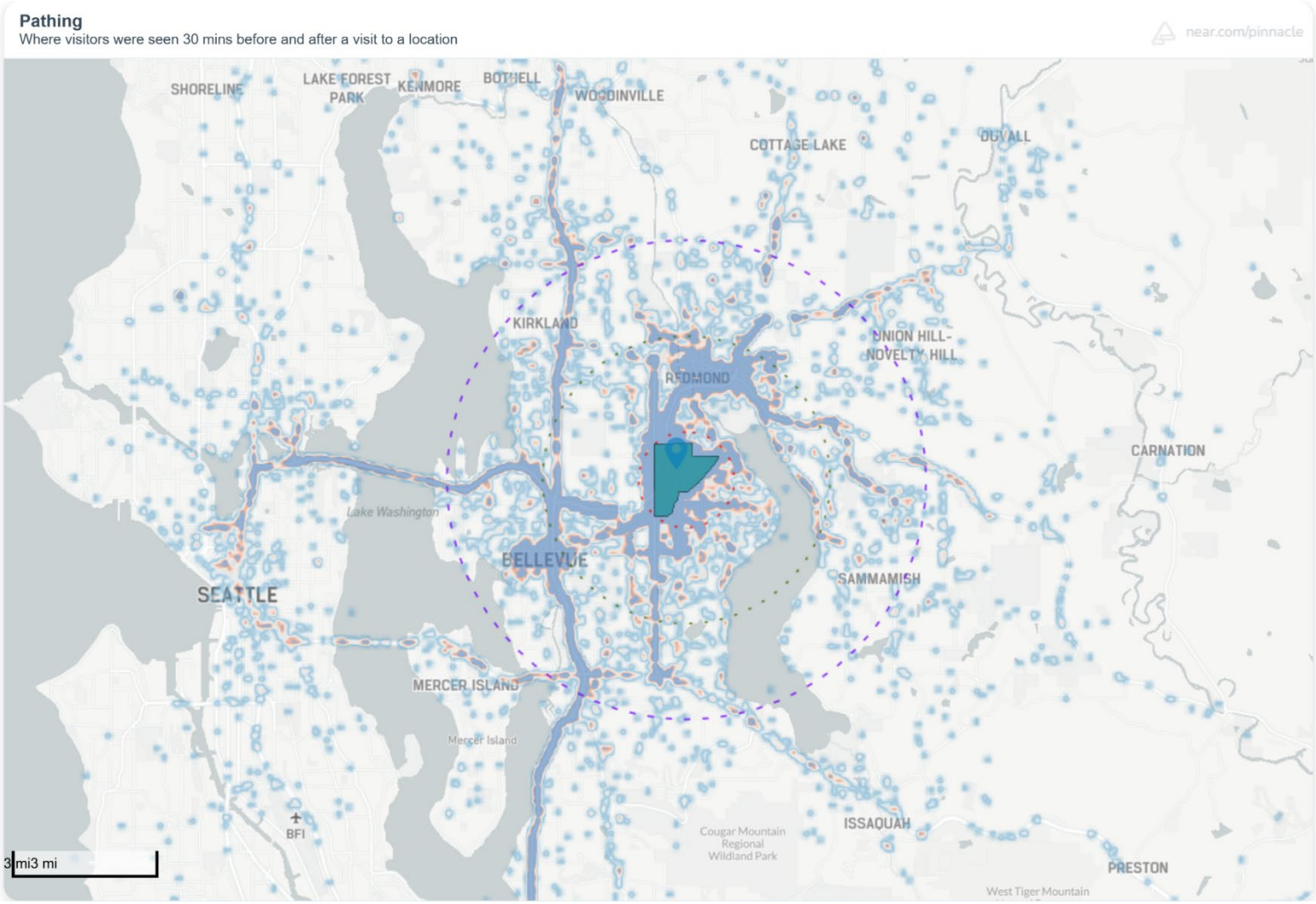
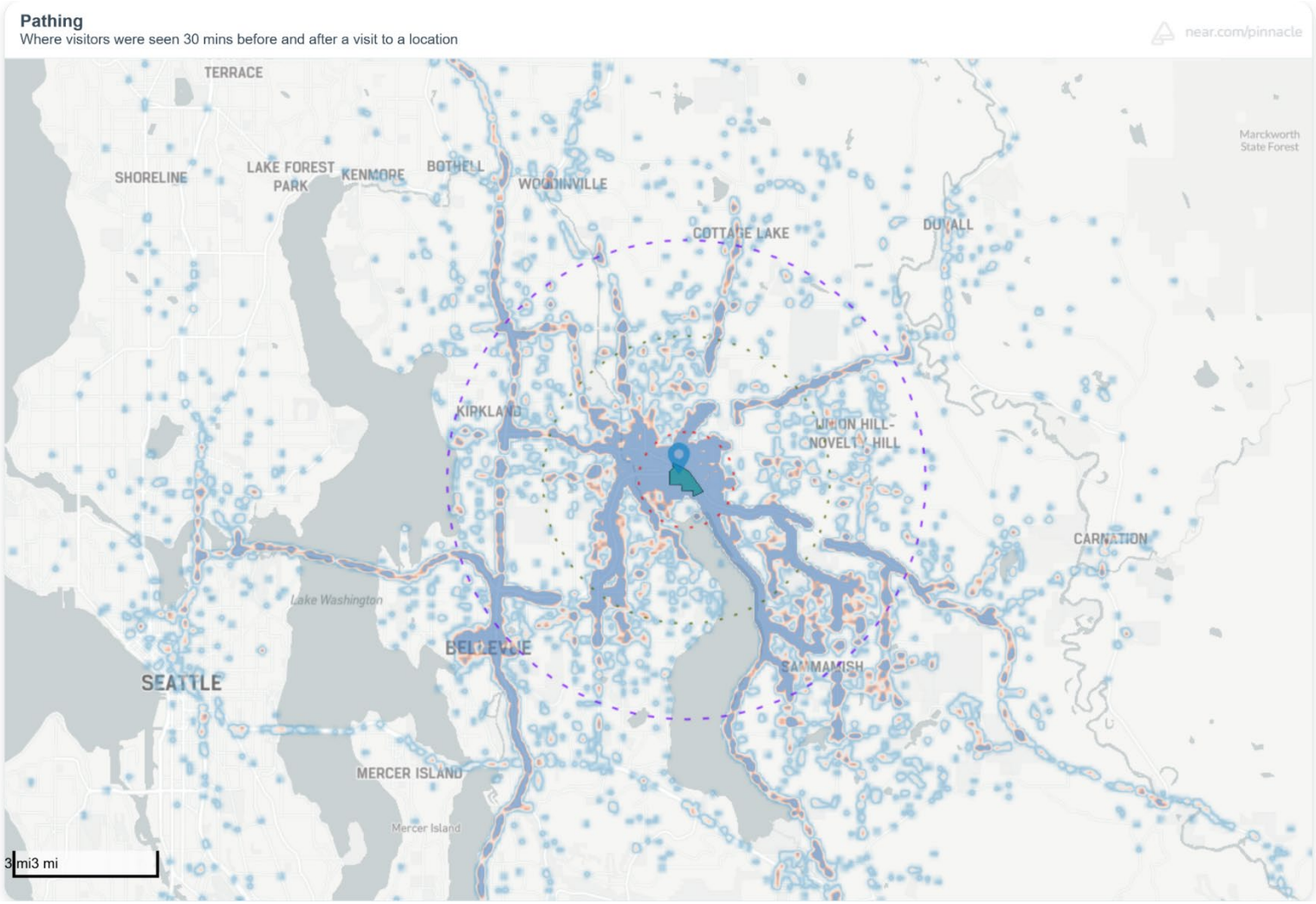


Figure 50: Visitor Travel Path Heat Map – Marymoor



7.1.5 Demographics

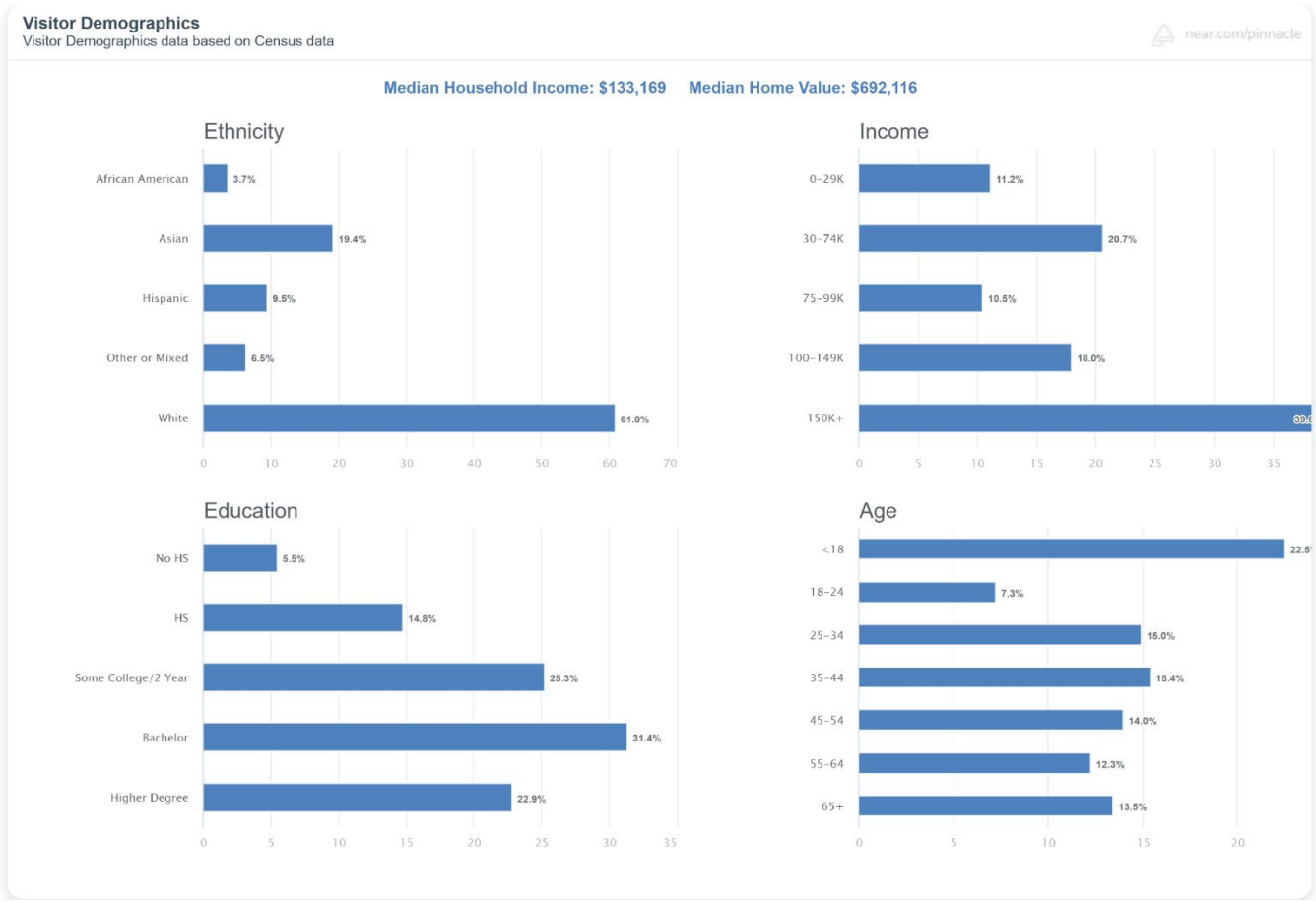
Key observations from the demographic data:

- Over 45% of visitors are under 34 and could be incentivized to use alternative modes or tech-enabled mobility devices for travel.
- More than 50% of visitors have household incomes above $100,000, which can be an indicator of higher car ownership compared to use of transit or other modes to travel.

Figure 51: Visitor Demographics – Downtown

Figure 52: Visitor Demographics – Overlake

Figure 53: Visitor Demographics – Marymoor



Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-450
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Finance	Kelley Cochran	425-556-2798

DEPARTMENT STAFF:

Finance	Haritha Narra	Deputy Finance Director
Finance	Ryan Edwardsen	Principal Revenue Analyst

TITLE:
House Bill 2015 - New Funding Mechanisms for Criminal Justice

OVERVIEW STATEMENT:
The Finance Department is preparing for a Study Session to discuss the recently enacted HB 2015 which provides new funding mechanisms for criminal justice programs. A draft presentation is attached for Council review, and feedback is being sought to ensure that the final Study Session presentation is thorough and complete.

The current outline of the presentation is as follows:

- HB 2015 Overview
- Qualifications
- Eligible Expenditures
- Redmond Police Staffing History
- Redmond Police Recent Efficiency & Process Improvements
- Options & Recommendations
  - These slides are still being developed
  - Finance staff continue to attend informational sessions and receive updates from the State
  - Options are expected to include:
    - Grant and sales tax opportunities
    - Decreasing or eliminating existing taxes
    - Ongoing and one-time needs
    - Implementation of new programs
    - Timing
- Taxpayer Impacts

☒ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☐ **Receive Information** ☒ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  N/A
- **Required:**
  N/A
- **Council Request:**
  N/A
- **Other Key Facts:**
  N/A

OUTCOMES:
Feedback from Council will ensure that Study Session materials provide the information required for discussion and development of next steps.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  N/A
- **Outreach Methods and Results:**
  N/A
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:
N/A

Approved in current biennial budget: ☐ **Yes** ☐ **No** ☒ **N/A**

Budget Offer Number:
N/A

Budget Priority:
Strategic and Responsive

Other budget impacts or additional costs: ☐ **Yes** ☐ **No** ☒ **N/A**
If yes, explain:
N/A

Funding source(s):
N/A

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
6/10/2025	Committee of the Whole - Finance, Administration, and Communications	Provide Direction

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
TBD	Study Session	Provide Direction

Time Constraints:
If implementation is desired in January 2026, the Department of Revenue (DOR) must receive notification from the city 75 days prior.

ANTICIPATED RESULT IF NOT APPROVED:
N/A

ATTACHMENTS:
Attachment A: Draft Study Session Presentation
Attachment B: HB 2015 Qualifications

House Bill 2015 Study Session - Draft Date to be Determined

- Kelley Cochran, Finance Director
- Ryan Edwardsen, Principal Revenue Analyst

Redmond
WASHINGTON

Agenda

- House Bill 2015 Overview
- Redmond Police Staffing History
- Options, Recommendations, and Impacts
- Next Steps

HB 2015 - Overview

Washington State has provided two revenue opportunities in the form of a grant and councilmanic sales tax increase to create a mechanism for cities to expand criminal justice staffing and programs.

- Enacted July 2025
- Both restricted to criminal justice programs
- The allowable sales tax increase is one tenth of a percent (.1%)
- The grant timeline is 7/27/25 to 6/30/28 with $100MM available for award
- After June 2028, the sales tax increase requires voter approval instead of being councilmanic
- Collection of sales tax revenue can be implemented starting January 2026 and on a quarterly basis thereafter to allow the Department of Revenue time to begin collections

1001

HB 2015 – Two New Funding Mechanisms

Grant

- Administered by Criminal Justice Training Commission (CJTC)
- $100 million program
- Expires June 2028
- Can use for hiring/training new officers and co-responders
- $125K per position maximum
- Policy & training requirements
- Must already impose or receive one of three available public safety or criminal justice sales taxes

Separate, but linked

Must qualify for the grant to impose the sales tax

Must already impose/receive a public safety sales tax to receive grant

Sales Tax

- Councilmanic until June 2028
- .1% tax on sales & use
- Permanent
- Broad use for criminal justice
- Stackable with other taxes & jurisdictions
- Need to meet the same requirements as the grant
- Do not need to apply for or receive the grant, just qualify

1002

HB 2015 – Qualifications

- **Attorney General Training & Policies:** Established policies that comply with state law as well as the Attorney General's guidance for law enforcement practices related to citizenship status
- **CJTC Trainings:** Participated in Criminal Justice Training Commission (CJTC) trainings related to behavioral health and first aid
- **Use of Force Policies:** Complied with state laws on use of force data reporting
- **Court-Ordered Firearm Relinquishment:** Established policies related to civil protection orders and the court-ordered surrender of firearms
- **Crisis Intervention Training:** At least 25% of officers have completed CJTC crisis intervention team training
- **Gender-Based Violence Trainings:** 100% completion by required officers of CJTC trainings on sexual assault and gender-based violence

1003

HB 2015 – Qualifications (Cont'd)

- **Receive/Impose Sales Taxes:** Receive funds from or authorized a public safety or criminal justice sales tax
- **Leadership Requirements:** A police chief, sheriff, or marshal who is CJTC-certified and has no felony convictions or gross misdemeanor convictions for moral turpitude, dishonesty, fraud, or corruption
- **Volunteer Requirements:** Establish policies and procedures for supervising agency volunteers
- **Staffing Plans:** Provide detailed staffing reports and plans
- **911 & Case Closure Rates:** Provide average rates from the preceding year for 911 responses and case closures
- **Voting Requirements:** Voters have not repealed a tax imposed pursuant to RCW 82.14.340 nor rejected a ballot proposition imposing taxes pursuant to RCW 82.14.450 in the past 12 months

HB 2015 – Eligible Expenditures

The sales tax funding can be used for all criminal justice and related expenses, while the grant is limited to:

Recruiting & Retaining:

- **New** positions only
- Lateral hires not allowed
- Law enforcement officers
- Peer counselors
- Behavioral health personnel

Training:

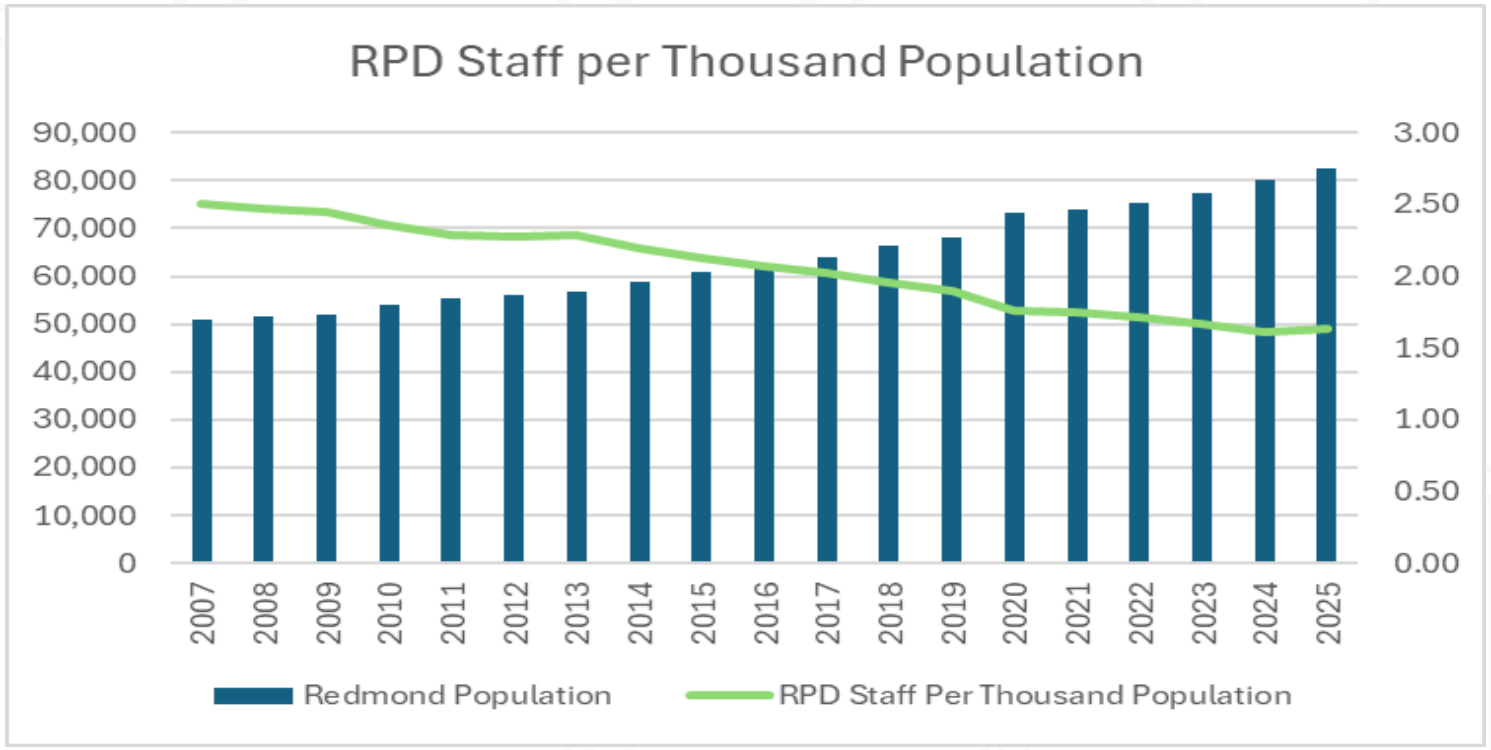
- Use of force
- De-escalation
- Crisis intervention
- Trauma informed trainings

General Law Enforcement:

- Emergency management planning
- Environmental hazard mitigations
- Security personnel
- Community outreach & assistance
- Alternative response programs
- Mental health crisis response

HB 2015 – Redmond Police Staff vs. Population

- Redmond Police was authorized at 127.50 full-time equivalent employees in 2007 and is authorized at 135.00 in 2025.
- The 2007 estimated population of Redmond was 50,898 and the 2025 estimate is 82,380.



1006

HB 2015 – RPD Recent Efficiency & Process Improvements

- Drone as a first responder program
- Excellence in Training Management
- Real-Time Information Center
- Speed Safety Camera Pilot Program

HB 2015 – Options & Recommendations (Slide(s) under development)

- Finance staff is continuing to learn about administration & requirements
- Options expected to include:
  - Grant and sales tax opportunities
  - Decreasing or eliminating existing taxes
  - Ongoing and one-time needs
  - Implementing new programs
  - Timing

HB 2015 – Cumulative Taxpayer Impacts

Jurisdiction	Tax	Type	Increase	Status
King County	Sales Tax	HB 2015	.1%	Approved
King County	Sales Tax	Transportation Benefit District	.1%	Pending
King County	Property Tax	Parks Levy		Pending
Redmond	Sales Tax	HB 2015	.1%	Pending

- If all sales taxes imposed, the rate would increase from 10.3% to 10.6%, resulting in an estimated annual increase of $485.00 per Redmond household.
- King County property tax levy would add approximate $70.00 per household annually.

Next Steps

- Council direction on further conversation

Thank you

Any Questions?

Redmond
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Grant and Sales Tax Eligibility Requirements – Compliance Summary

City of Redmond Police Department
As of May 23, 2025

This document outlines the Redmond Police Department's current compliance status with state-level eligibility requirements related to grant funding and public safety sales tax distributions. It addresses statutory mandates found in various RCWs (Revised Code of Washington), associated department policies, and training initiatives.

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1. Immigration & Protected Class Enforcement Prohibition

RCWs: 43.17.425, 10.93.160

These laws prohibit investigating, detaining, or taking law enforcement actions based solely on an individual's religion, immigration or citizenship status, or other protected characteristics.

- **Redmond Police Department Policy 413 – Immigration Violations**
  Complies with state law and affirms RPD's non-involvement in immigration enforcement.

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2. Violence De-Escalation and First Aid Training

RCWs: 43.101.455, 36.28A.445

These statutes mandate that law enforcement agencies provide violence de-escalation and first aid training, including the development of department-specific guidelines.

- **Training Compliance Status:**
  De-escalation and first aid training is delivered via:
  - A 24-hour Patrol Tactics in-service training
  - Online training through the Criminal Justice Training Commission (CJTC)

As of July 2025, approximately 50% of RPD officers have completed the required Patrol Tactics curriculum. All remaining officers (who graduated prior to January 1, 2024) are on track to meet the state's deadline of January 1, 2028.

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3. Use of Force & De-Escalation Policies

RCW: 10.120.020

Agencies must adopt de-escalation and use of force policies consistent with the model policy issued by the Attorney General and submit them accordingly.

- **RPD Policy 300 – Use of Force**
    - Policy 300.3.1 addresses alternative tactics and de-escalation techniques.
    - All policies are in line with the Attorney General's model and have been submitted.

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4. Use of Force Reporting & Accountability

RCWs: 10.118, 10.120

Agencies must collect and report all qualifying use of force incidents to the state.

- **Policy Framework:**
    - **Policy 300.4.2** references the state's use of force data collection system, including reporting requirements for pointing a firearm.
    - **Policy 300.5** details mandatory reporting requirements following a use of force incident.
    - **Policy 301 – Incident Review Board** outlines the post-incident review process for force incidents, pursuits, and collisions. The board meets monthly and includes representation from training, use-of-force instructors, and peers.

The board's goal is accountability and ongoing improvement through training, supervision, and policy updates.

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5. Civil Protection Orders & Firearms Regulations

RCWs: 7.105, 9.41

RCW 7.105 governs a wide range of civil protection orders. RCW 9.41 covers firearm regulations, including ownership restrictions and enforcement.

- **Policy Coverage:**

- **Policy 339 – Extreme Risk Protection Orders**: Implements procedures consistent with RCW 7.105, including firearm surrender provisions (Policy 339.4.3).
- **Policy 310 – Domestic Violence Court Orders**: Complies with RCW 7.105.010.
- **Policy 207 – Concealed Pistol License**: Covers CPL issuance and restrictions.

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6. Crisis Intervention Team (CIT) Training

Requirement: 25% of officers must complete 40-hour CIT training.

- **Compliance Status:**
  - As of July 15, 2025, 21 of 79 sworn officers (26.6%) have completed the 40-hour CIT course.
  - Two additional officers are scheduled to complete it by August 2025.

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7. Gender-Based Violence & Trauma-Informed Interviewing

RCWs: 43.101.272, 43.101.276

These laws require specialized training for officers involved in investigating gender-based violence, including sexual assault cases.

- **Compliance Status:**
  - RPD has two detectives assigned to sexual assault and gender-based violence investigations. Both have completed the required training per RCW 43.101.272.
  - RCW 43.101.276, passed in 2025, requires statewide compliance beginning July 1, 2026. RPD will ensure all required staff are trained by this deadline.

Summary & Next Steps

Redmond Police Department remains in active compliance with nearly all current statutory eligibility requirements for grant and sales tax funding. Several key training efforts are

ongoing and on track to meet state deadlines. Continued tracking, policy updates, and documentation will ensure sustained compliance and future eligibility.

Please contact Deputy Chief Brian Coats if further clarification or documentation is needed regarding any RCW, training schedule, or department policy.

Memorandum

Date: 8/4/2025
Meeting of: Committee of the Whole - Planning and Public Works

File No. CM 25-414
Type: Committee Memo

TO: Committee of the Whole - Planning and Public Works
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Planning and Community Development	Carol Helland	425-556-2107

DEPARTMENT STAFF:

Planning and Community Development	Seraphie Allen	Deputy Director
Planning and Community Development	Jeff Churchill, AICP	Planning Manager
Planning and Community Development	Ian Lefcourte, AICP	Principal Planner

TITLE:
Briefing on the Allocation of $1,000,000 in City Funds to Bellwether Housing's Prisma Development to Support Deeper Affordability of Housing Units

OVERVIEW STATEMENT:
The Mayor has approved allocating $1 million in funds budgeted for affordable housing to Bellwether Housing's Prisma development. Prisma is an affordable, transit-oriented housing development adjacent to Overlake Village Station. King County staff have proposed a matching contribution with an additional $1.15 million, which is set to be approved by the King County housing committee. The funding allocation does not impact current budgeting and does not require budget changes.

Project Summary

- **Prisma**: Six-story, mixed-use building in the Overlake Neighborhood.
- **Ground Floor Uses**: Cafés, community spaces, small businesses, "mini town hall," and nonprofit services.
- **Housing**: ~328 affordable homes, including studios, 1, 2, and 3-bedrooms.
- **Affordability Levels**: 30% to 80% of Area Median Income (AMI).
- **Special Populations:** Units set aside for people with disabilities.

Economic Context and Need for Additional Funding

- In early 2023, Bellwether was selected by Sound Transit to develop affordable housing adjacent to Overlake Village Station.
- Since selection, development costs have risen sharply due to inflation, labor shortages, supply chain disruptions, and rising interest rates.
- These factors have created a funding gap.
- To mitigate the gap, Bellwether must adjust some units to higher AMI levels than originally planned, though the total unit count remains unchanged.
    - Originally, ~70% of units were proposed at 50% AMI.

Impact of Redmond's $1 Million Contribution

- Redmond's funding helps "buy down" affordability, preserving deeper affordability for more units than if the project did not receive the funding.
- 3-bedroom units will be prioritized for affordability at 50% AMI. This serves two critical housing needs: larger unit sizes, and units at 50% AMI or below.
- The exact number of units retained at lower AMIs is under review by Bellwether but is directly tied to this funding. The tentative impact of the $1 million combined with part of King County's match is a "buy down" of roughly 25 3-bedroom units to 50% AMI.

☐ **Additional Background Information/Description of Proposal Attached**

REQUESTED ACTION:

☒ **Receive Information** ☐ **Provide Direction** ☐ **Approve**

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  The Comprehensive Plan Housing Element provides a framework for housing goals, policies, and actions to address housing needs that advance the City's vision. Redmond 2050 Housing Policies HO-17 and HO-23 direct the City to cooperate with A Regional Coalition for Housing (ARCH) to attain a variety of housing process and outcome goals. HO-6 directs the City to identify and implement strategies to meet affordable housing need, of which housing serving households earning 50% Area Median Income or less is the greatest need.
  The Housing Action Plan identifies implementation strategies to address the housing crisis. Housing at the lowest levels of affordability (50% AMI and below) are not achievable without public subsidy.
- **Required:**
  N/A
- **Council Request:**
  N/A
- **Other Key Facts:**
  The imminent Prisma project milestones necessitated the timely commitment of the housing funds to Bellwether Housing.

OUTCOMES:

H.B. 1220 requires jurisdictions to make adequate provisions for housing at all economic segments of the community including low, very low, extremely low and moderate income households based on projected need as provided by the Department of Commerce.

A greater share of the cost-controlled affordable housing units at the Prisma Overlake Village Station Transit-Oriented Development will be at deeper levels of affordability (measured as a percent of Area Median Income). This promotes progress towards the City supporting housing which serves households earning 50% AMI or less.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  N/A

- **Outreach Methods and Results:**
  N/A
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:
$1,000,000

Approved in current biennial budget: ☒ **Yes** ☐ **No** ☐ **N/A**

Budget Offer Number:
0000345 - General Government/Facilities CIP

Budget Priority:
Vibrant and Connected

Other budget impacts or additional costs: ☐ **Yes** ☒ **No** ☐ **N/A**
If yes, explain:
N/A

Funding source(s):
General Fund, Real Property Fund, ARPA

Budget/Funding Constraints:
The funds allocated to Bellwether were drawn from the $10,000,000 line item dedicated for Affordable Housing Development from the 2023-24 and 2025-26 Biennial Budgets. That $10,000,000 was created from three combined funding sources: General Fund, Real Property Fund, and ARPA.

☐ **Additional budget details attached**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
N/A	Item has not been presented to Council	N/A

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
N/A	None proposed at this time	N/A

Time Constraints:
Bellwether Housing is working on closing all necessary financial documentation for Prisma in October 2025. The timeline requires coordination across multiple agencies and legal review, which necessitated the expedited allocation of funds to

Bellwether Housing.

ANTICIPATED RESULT IF NOT APPROVED:
N/A - This item is a briefing.

ATTACHMENTS:
Attachment A: Funding Allocation to Bellwether's Affordable Housing One - Pager

Funding Allocation to Bellwether's Affordable Housing

Overview
The Mayor has approved allocating $1 million in funds budgeted for affordable housing to Bellwether Housing's Prisma development. Prisma is an affordable, transit-oriented housing development adjacent to Overlake Village Station. King County has proposed matching this contribution with an additional $1.15 million. The funding is proposed to come from the allocated $10 million for affordable housing needs and does not require budget changes.

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This investment supports Redmond's goals of equitable, transit-oriented development with an emphasis on households earning 50% AMI and below.

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