15670 NE 85th Street
Redmond, WA

City of Redmond

Memorandum

Date: 10/15/2024
Meeting of: City Council

File No. AM No. 24-149
Type: Consent Item

TO: Members of the City Council
FROM: Mayor Angela Birney
DEPARTMENT DIRECTOR CONTACT(S):

Public Works	Aaron L. Bert	425-556-2786

DEPARTMENT STAFF:

Public Works	Vangie Garcia	Deputy Director
Public Works	Paul Cho	Traffic Operations Engineering Manager
Public Works	Hidemi Tsuru	Senior Engineer
Public Works	Adnan Shabir	Senior Engineer

TITLE:
Approval of Vendor Agreements, with Qfree in the Amount of $170,600 and AM Signal Hardware in the Amount of $397,434, for Adaptive Traffic Signal Control - Downtown Project

OVERVIEW STATEMENT:
Public Works requests approval of contracts with two vendors for the Downtown Adaptive Signals Control Project. These contracts involve deploying adaptive signal control and multimodal detection technology in the Downtown area. The contract with Qfree for Adaptive signal control is for $170,600.96, and the contract with AM Signal Hardware for multimodal detection is for $397,434.50.

Adaptive signal control technology monitors traffic in real time and automatically adjusts signal timings to accommodate changing traffic patterns in real time. Multimodal detection technology improves service at intersections with the ability to detect multiple road users such as vehicles, pedestrians, and bicyclists.

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

REQUESTED ACTION:

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

REQUEST RATIONALE:

- **Relevant Plans/Policies:**
  Transportation Master Plan
  - Ensure Strong Support for Urban Centers

- Improve Travel Choices and Mobility

Community Strategic Plan Objective #3: Ongoing investigation of community-driven safety concerns such as traffic volumes, high accident locations, bike lanes, crosswalks, and sidewalks to improve safety for pedestrians, bicyclists, and motorists.

- **Required:**
  N/A
- **Council Request:**
  N/A
- **Other Key Facts:**
  None

OUTCOMES:

Implementation of this project will improve signal traffic operations on the most heavily traveled corridors in the Downtown area by improving traffic flow and responding faster to changing traffic conditions. The multimodal detection technology will help improve service to vulnerable users such as pedestrians and bicyclists.

COMMUNITY/STAKEHOLDER OUTREACH AND INVOLVEMENT:

- **Timeline (previous or planned):**
  The Downtown Adaptive Signal Control Project implementation will start in the fourth quarter of 2024 with anticipated completion in the third quarter of 2025.
- **Outreach Methods and Results:**
  Once the project is close to installation, the project team will meet with Communications on an Outreach Plan.
- **Feedback Summary:**
  N/A

BUDGET IMPACT:

Total Cost:
Adaptive Traffic Signal Control - Downtown: $1,000,000

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

Budget Offer Number:
CIP

Budget Priority :
Vibrant and Connected

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

Funding source(s):
Adaptive Traffic Signal Control - Downtown: Business Tax

Budget/Funding Constraints:
N/A

☐ **Additional budget details attached.**

COUNCIL REVIEW:

Previous Contact(s)

Date	Meeting	Requested Action
7/2/2024	Business Meeting	Receive Information
10/1/2024	Committee of the Whole - Planning and Public Works	Provide Direction

Proposed Upcoming Contact(s)

Date	Meeting	Requested Action
N/A	None proposed at this time	N/A

Time Constraints:
N/A

ANTICIPATED RESULT IF NOT APPROVED:
Adaptive technology and multimodal technology would not be implemented.

ATTACHMENTS:
Attachment A: Qfree Hardware and Software Sales Agreement
Attachment B: Qfree Hardware and Software Sales Agreement Amendment
Attachment C: AM Signal Hardware Sales Agreement
Attachment D: AM Signal Hardware Sales Agreement Amendment
Attachment E: Adaptive Traffic Signal Control - Downtown Project Information Sheet
Attachment F: Adaptive Signals Issues Matrix from July 2, 2024, Business Meeting
Attachment G: Project Vicinity Map