

R = Required
 I = Important
 N = Nice to have
 E = Explore

City of Redmond

Project Portfolio Management Solution Requirements

	Proposing Vendor and Solution Information	Response
	Vendor Information	
	Contact: Name, Title	The primary point of contact for Aurigo: Name: Hugh Kreizenbeck Title: Director of Sales
	Contact Phone(s)	602.339.1541
	Contact Email	hugh.kreizenbeck@aurigo.com
	Company Information	
	Year founded	Aurigo Software Technologies, Inc. was founded in 2003.
	Parent company (if separate)	Aurigo Software Technologies, Inc. is a privately held US corporation. It does not have a parent company.
	Company genealogy (name changes, mergers)	Aurigo has never been part of a merger, acquisition, or reorganization. Aurigo Software Technologies, Inc. has always operated under the same name.
	Public vs. private, exchange listing if public	Aurigo Software Technologies, Inc. is a privately held US corporation.
	Vendor Employees	
	Total	Aurigo currently has 550+ full-time employees.
	Number of employees dedicated to proposed software	A minimum of five Aurigo Team members will be assigned to the project. The standard roles for the Aurigo Team are Project Manager, Business Analyst, Training Lead, Integration Specialist, and Solution Architect. Additional experts and technicians like Configuration Specialists and Data Migration experts will be brought in to work on specified tasks per the project's scope.
	Vendor Customer Information	
	Total customers	Aurigo has over 20 years of experience providing Commercial-Off-the-Shelf ("COTS") solutions to dozens of North American public sector agencies. Aurigo's customers are 100% public sector, which includes federal, state, and provincial departments, cities, counties, municipalities, and government agencies, with thousands of users using Masterworks' solutions. Aurigo currently has forty-five active clients across the United States and Canada. One is a private entity, and forty-four are various governmental agencies, including eight of the fifty state DOTs that use Aurigo Masterworks Cloud to build and maintain their transportation infrastructure. The exhibit below provides a snapshot of some of Aurigo's clients across North America. Most of these clients are government agencies equal or greater in size to the City:

R = Required
 I = Important
 N = Nice to have
 E = Explore

City of Redmond Project Portfolio Management Solution Requirements

Proposing Vendor and Solution Information	Response				
	<div style="border: 1px solid black; padding: 10px; text-align: center;">  <p>Aurigo is helping its customers plan and deliver over \$300 billion of capital programs safely and efficiently. Masterworks is suitable for managing all infrastructure projects irrespective of size, scope, cost, or duration.</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td data-bbox="820 1302 966 1480">  45K+ Mile <small>Of highway managed by agencies using Masterworks</small> </td> <td data-bbox="974 1302 1161 1480">  35B Gallons <small>Of drinking water delivered per day by Water agencies using Masterworks</small> </td> <td data-bbox="1169 1302 1356 1480">  53M+ Passengers <small>Travel every year through Airports agencies that use Masterworks</small> </td> <td data-bbox="1364 1302 1542 1480">  \$2B+ Import/Export <small>Annually through Ports managing their projects using Masterworks</small> </td> </tr> </table> </div>	 45K+ Mile <small>Of highway managed by agencies using Masterworks</small>	 35B Gallons <small>Of drinking water delivered per day by Water agencies using Masterworks</small>	 53M+ Passengers <small>Travel every year through Airports agencies that use Masterworks</small>	 \$2B+ Import/Export <small>Annually through Ports managing their projects using Masterworks</small>
 45K+ Mile <small>Of highway managed by agencies using Masterworks</small>	 35B Gallons <small>Of drinking water delivered per day by Water agencies using Masterworks</small>	 53M+ Passengers <small>Travel every year through Airports agencies that use Masterworks</small>	 \$2B+ Import/Export <small>Annually through Ports managing their projects using Masterworks</small>		
Percentage of customers in the Public Sector	<p>Aurigo's clients are 98% Public Sector. Our primary client base includes state and provincial departments, cities, counties, municipalities, and other government agencies that employ tens of thousands of people.</p>				
Customers in Washington	<p>Aurigo's clients in Washington include the following:</p> <ul style="list-style-type: none"> • City of Seattle • Snohomish County • King County Metro 				
Customers similar to the City of Redmond	<p>Aurigo clients that are similar to the City of Redmond include Snohomish County (Washington), King County Metro</p>				

R = Required
 I = Important
 N = Nice to have
 E = Explore

City of Redmond

Project Portfolio Management Solution Requirements

	Proposing Vendor and Solution Information	Response
		(Washington), the City of Las Vegas (Nevada), Fort Bend County (Texas), and the City of Lincoln (Nebraska).
	Implementation model: Direct or Partner	Aurigo will provide all software and services required to implement the City's Project and Portfolio Management solution. We will not be working with a partner.
	Version Schedule	
	Proposed version and release date	<p>Proposed Software Details:</p> <ul style="list-style-type: none"> • Product Name: Aurigo Masterworks Cloud • Current version: 23.3.0 • Current version release date: Aug 17, 2023
	Typical release schedule (major and minor releases)	<p>Aurigo will provide regular software updates to ensure the City has the most current maintenance updates and product upgrades. This well-defined process addresses each release type's scheduling, user experience, and other service factors for each release type. The City will receive advance notice of any system administration or upgrade activity and if any system downtime occurs. The City will also be informed about the content included in each release and the actions required (if any) before applying the update. The City and Aurigo will work together to promote updates and upgrades into production. New versions of Aurigo's software will always be deployed in a Staging/UAT environment for the City to test and approve before being deployed into production.</p> <p>There are two types of software releases:</p> <ol style="list-style-type: none"> 1. Maintenance Releases – Maintenance releases (e.g., bugfix, patch updates, etc.) are generally initiated by a helpdesk ticket filed with the Aurigo Customer Success team. Aurigo will coordinate all maintenance releases with the City's staff to ensure little to no downtime or disruption of business. The Customer Success team will work with the City to identify the earliest opportunity Aurigo can promote the patch from the UAT environment to production. 2. Product Releases - Aurigo publishes a quarterly software update schedule for upgrades showing system configuration, patch management, and release plans for the following twelve (12) months. Aurigo releases new minor versions of its Masterworks software about once per quarter and new major versions every one to two years. There are two types of upgrade releases: <ul style="list-style-type: none"> ○ Major upgrade - The major version upgrade may include workflow changes, UI changes, new security features, or newer modules. This upgrade

R = Required
 I = Important
 N = Nice to have
 E = Explore

City of Redmond

Project Portfolio Management Solution Requirements

	Proposing Vendor and Solution Information	Response
		<p>release is delivered once every one to two years with prior approval from the City. Aurigo's Professional Services team typically handles major updates because they are generally more complex and may include more than updating the Masterworks software.</p> <ul style="list-style-type: none"> ○ Minor upgrade - The minor version upgrade contains enhancements to existing features, security fixes, and application-level performance enhancements. This upgrade release is delivered no more than four times a year. The Customer Success team or other designated Aurigo representative will contact the City directly a few weeks before the update is scheduled. The Customer Success team will then work with the City to ensure the City is well-positioned to receive the update. The Aurigo Customer Success team will manage the initial deployment to the UAT and the subsequent approval by the City for promotion to production. <p>The system administration and upgrade activities are performed in predefined windows agreed upon by the City and Aurigo. The windows typically occur between the close of business and the start of business the next day. In most cases, Aurigo can adjust downtime scheduling to meet the City's specific needs. Aurigo schedules downtime for major system updates at least 30 days in advance and commits not to exceed 12 hours of system downtime in 98% of cases. The average length of downtime for a complete system update is 2 hours. Any system administration or upgrade work needed to address an unplanned outage will be handled as a system outage as defined in the Service Level Agreement ("SLA"). Aurigo provides all Masterworks patch fixes at no additional cost during the life of the contract with the City.</p>
	Number of prior versions supported	Aurigo provides support for the current and last two major releases of Masterworks. The City can run an older version while preparing to upgrade to the latest/newer version. The City must upgrade if Aurigo announces the discontinuation of support for an older version the City is running.
	Cost Estimate for On-Premises Deployment	
	Licensing Model: (Enterprise, Named, Concurrent)	Aurigo is not offering an on-premise solution.
	License: 50 Users (ability to add users in the future) with 450+ external users (contractors, project managers, etc.)	

R = Required
 I = Important
 N = Nice to have
 E = Explore

City of Redmond

Project Portfolio Management Solution Requirements

	Response
Proposing Vendor and Solution Information	
Implementation Estimate: Include design, configuration, training, travel expenses, installation, data conversion, integration, reports, etc.	
Other: Indicate any 3 rd party software and associated costs for modules necessary to meet requirements.	
Annual Support & Maintenance: Percent of software cost	
Year One	
Year Two	
Year Three	
Year Four	
Year Five	
Total Year One Cost	
Total Five-Year Cost	
Cost Estimate for Cloud Deployment	
Licensing Model: (Enterprise, Named, Concurrent)	Named
Annual Subscription: 50 Users (ability to add users in the future) with 450+ external users (contractors, project managers, etc.)	Year 1: \$122,640 with a 3% increase annually. This subscription fee includes hosting, technical support, and Aurigo software maintenance patches.
Implementation Estimate: Include design, configuration, training, travel expenses, installation, data conversion, integration, reports, etc.	\$161,012
Other: Indicate any 3 rd party software and associated costs for modules necessary to meet requirements.	N/A
Year One	\$283,652 (this includes the implementation estimate noted above)
Year Two	\$126,319
Year Three	\$130,109
Year Four	\$134,012
Year Five	\$138,032
Total Year One Cost	\$283,652
Total Five-Year Cost	\$812,124

Aurigo Professional Service Rates:	
Project Manager, Technical and Solution Architects, Training Lead	\$250 / hour
Business Analysis, Software Configuration, and Testing Specialists	\$225 / hour

Aurigo Pricing Assumptions:	
1	All Pricing specified in the proposal is subject to change after the expiration of the initial contract term.
2	The Pricing specified in the proposal includes Aurigo's Silver Support Plan with 99.9% uptime, not including planned downtime, and phone support from 6 a.m. to 6 p.m. Redmond local time.
3	Aurigo expects to provide all services virtually and does not anticipate the need to bill for travel expenses. However, should travel be required, the expenses will be billed as actuals when they occur. Reimbursement will be per the City's travel policies.
4	Aurigo has included a Data Migration Discovery Session in the implementation scope. This session aims to understand the data migration requirements, define the scope, and provide the City with a defined scope and investment. If the City wants to proceed with the defined data migration scope, it can procure the services using the Project Change Control Process.
5	The Annual Subscription Fees are due upon contract signing and every anniversary date after that.
6	Any change to the agreed-upon scope or project schedule outside Aurigo's control may result in a Project Change Order and additional fees.
7	The Services investment quoted above is calculated based on the scope defined in the RFP, Aurigo's interpretation of those requirements, the City's answers to vendor questions, and the assumptions stated in Aurigo's RFP response. Any substantial changes to the assumptions or scope may result in a Project Change Order and additional fees.
8	Aurigo has provided our system integration approach and investment in the response.
9	The Pricing in this response is considered valid for ninety (90) days from the submission date.

R = Required
 I = Important
 N = Nice to have
 E = Explore

City of Redmond

Project Portfolio Management Solution Requirements

Functional Requirements		Comments – How does the solution address this?
Areas of Functionality		Identify if 3 rd Party solution is required for functionality
R	1. Finance	<p>Masterworks Capital Planning product can manage cash flows, plan multi-year programs, collaborate across key stakeholders, and drive year-on-year execution plans. The product can produce dynamic what-if forecasting for multi-year and multi-regional programs, monthly cash flow forecasting, and multiple plan/forecast comparisons. Masterworks will provide the City with the following capabilities to plan its capital projects seamlessly:</p> <ul style="list-style-type: none"> • Capital Projects: Strategic objectives, multi-year planning, project scoring, approvals, and monitoring progress. • Capital Programs: Create and approve multi-year programs for CIP or TIP programs, determine fund source(s) and fund availability, track decisions, track approvals, and track progress. • Funds: Determine fund sources, fund programs and plans, fund allocations, fund availability, and funding reports • Budgets: Manage cash flows, track funding sources, track itemized costs, track revisions, budget allocation, and budget reports • Analysis: What-if analysis, budget analysis, CIP/STIP phased schedules, cash flow management • Forecasting: Compare multiple forecasts, multi-year cash flows, theoretical forecasting, Inflation adjustments, Interest capitalization, and expenditure curves • Reports and Graphs: Completion status reports, project financial reports, program financial reports, fiscal constraint reports • Integration: Financial systems, data warehouses, project management systems, ESRI/GIS mapping, DocuSign e-signatures
R	2. Project/Portfolio Management	<p>Masterworks has program and portfolio planning capabilities to help the City track numerous projects, allocate funds to the right projects, manage multi-year schedules, and keep projects within budget. Masterworks combines everything the City will need to group projects into portfolios and programs. Program/Portfolio Managers and Directors will have access to screen forms, reports, and dashboards to assist them in managing the business. Masterworks comes with standard reports and dashboards that show KPIs and metrics at the program, portfolio, and project levels. The City can use the Report Builder in Masterworks to configure additional reports and dashboards that show project-related metrics such as project health, schedules, KPIs, cash flows, budget status, and funding availability.</p>

		The City can configure dashboards that display administrator-level information for the Program/Portfolio Managers and Directors. From within the reports and dashboards, authorized users can drill down from the program/portfolio level to the project details or roll up from the project level. Users can display a summary of project schedules at the program and portfolio levels, and Masterworks can perform what-if analyses on projects and portfolios.
R	3. Contract/Bid Management	Masterworks' Estimation and Bidding product provides full procurement and bid management features that support the development of bid packages, management of solicitation invites, enforcement of bid open and close dates, collection of bids, comparison bids, and awarding contracts. The product can create commitment and value statements for all procurements. The City can compare bids with the engineer's estimate and differences in unit bid prices between bidders and the engineer's estimate. The analysis provided by this feature enables managers to determine the most competitive bid before awarding.
R	4. Construction Management	Masterwork's Construction Project Management product is the most complete solution on the market today. The City can use it to plan, track, and manage construction project resources, schedules, budgets, contracts, and risks to ensure projects are on time and within budget. The product supports intricate engineering estimates, contractor/consultant management, worksite equipment and material tracking, and all labor and skills requirements. It combines everything the City needs to plan, track, automate, and manage project funds, budgets, labor, equipment, materials, schedules, contracts, inspections, environmental compliance, and risk management in one integrated solution. The City will have all the information it needs to manage its construction projects.
R	5. Document Management	Masterworks has comprehensive document management capabilities that facilitate collaboration and organization of content in designated project folders. The solution will support document classification, metadata features, and a robust search engine. Business rules and role permissions determine who can upload, check-in or out, move, or delete files. Workflows can be associated with business activities and file types to manage document review and approval processes. Built-in version control allows authorized users to retrieve any version of a document.
R	6. Reporting	Masterworks will help the City stay in front of its projects by bringing real-time reporting to capital programs, construction, and maintenance projects. Masterworks comes with dozens of standard reports with analysis and comparison capabilities that aid decision-making. Additional reports can be configured to address specific requirements. Authorized users can create ad hoc reports, such as fund accounting and vendor summary reports, from any data set in the solution the user can access. Reports, once rendered, can be exported into various formats, including Word, Excel, PDF, PowerPoint, etc. The solution will include many dashboards to provide the City with decision-support assistance.
Technology		

R	7. Deployment model (On premises, cloud single tenant, cloud multi-tenant, etc.).	Masterworks is a SaaS solution hosted in the Cloud on the Amazon Web Services (AWS) public cloud platform. The City's data, configured forms, workflows, reports, and documents will be in a single-tenant environment.
R	8. If cloud deployed, list cloud platform provider utilized (e.g., Azure, Amazon Web Services, etc.).	Masterworks will be hosted on the Amazon Web Services (AWS) public cloud platform.
R	9. If on premises deployed, list server/platforms supported and percentage of customers on each.	Aurigo does not provide on-premise solutions.
R	10. If on premises deployed, list databases supported and percentage of customers on each.	Aurigo does not provide on-premise solutions.
R	11. If on premises deployed, describe virtual server support.	Aurigo does not provide on-premise solutions.
R	12. Describe different levels of support, if offered, including hours of operation.	<p>Aurigo provides world-class client support using an in-house team based out of Aurigo's corporate headquarters in Austin, Texas. The City can contact Aurigo during support hours via telephone or 24x7x365 via email or web portal. Aurigo offers three levels of support for its clients:</p> <ul style="list-style-type: none"> • Aurigo Silver Support: The Silver Support Plan is Aurigo's standard software support plan. Clients receive phone/web support from 8 a.m. to 5 p.m. client local time. The Plan includes restorations for any issues that might arise during normal operations. Each issue is categorized by severity, and Aurigo commits to strict service level agreements (SLAs). Also, the client can access all software updates and upgrades Aurigo produces. Aurigo makes its enhancements available to all clients as they are released so they can run the latest and greatest version of Masterworks. • Aurigo Gold Support: The Gold Support Plan comprises everything in the Silver Plan, increases the response priority, and provides extended support hours from 8 a.m. to 5:30 p.m. client local time. The Plan allows clients to acquire additional blocks of support hours for post-production configuration changes for an additional yearly fee. The amount of support person-hours can be customized to meet the client's needs. • Aurigo Platinum Support: The Platinum Support Plan comprises everything in the Gold Plan, increases the response priority to the highest level, and provides extended support hours from 8 a.m. to 6 p.m. client local time. The Plan allows clients to acquire additional blocks of support hours for post-production configuration changes for an additional yearly fee. The amount of support person-hours can be customized to meet the client's needs. <p>The City can select the Support Plan that meets its needs. All three Support Plans require the City's IT Department or Helpdesk to provide Level 1 support and take initial support calls directly from the</p>

City's end-users. If the IT Department or Helpdesk cannot resolve a Masterworks software issue, the issue can be escalated to Aurigo's Customer Success team by an authorized City IT Department or Helpdesk staff member. Aurigo will only provide Level 2 and Level 3 support directly to the City's IT Department or Helpdesk staff.

R 13. Describe support service level agreement provided, including target response and resolution times.

Aurigo commits to responding to support requests in a timely manner. If the issue is because of a bug, a fix may take longer, depending on the nature of the bug. The time to fix will be bug-specific, and an estimate will be provided to the City. In such cases, Aurigo will provide a workaround or advisory instructions (such as when the fix will be released into production), stopping the SLA clock for that specific issue. The service level time will be measured from the first communication to Aurigo via email or the support line during standard business hours. To calculate "Time to Repair" accurately, the clock will pause if Aurigo waits for the City's approval, clarification, or confirmation for corrective change. This applies to all severity levels.

The SLAs for the target response and resolution times will be outlined in **Schedule 2, "Support Plan and Service Level Agreement,"** of Aurigo's Services Subscription Agreement ("SSA"). The SSA is attached in **Section 6** of the **Response Document**. The SLA times will depend on the issue's severity and the support plan chosen by the City. The following table outlines the typical response and resolution times.

Aurigo Support Plan	Silver (included with the subscription fee)	Gold (purchased separately)	Platinum (purchased separately)
Incident Response Times			
Severity 1	1 Hour	45 Minutes	30 Minutes
Severity 2	4 Business Hours	3 Business Hours	2 Business Hours
Severity 3	1 Business Day	6 Business Hours	4 Business Hours
Severity 4	1 Business Day	1 Business Day	4 Business Hours
Incident Restoration Times			
Severity 1	4 Hours	3 Hours	2 Hours
Severity 2	2 Business Days	2 Business Days	2 Business Days
Severity 3	7 Business Days	7 Business Days	7 Business Days
Severity 4	90 Business Days	45 Business Days	30 Business Days

R 14. Describe training options, including at implementation (train the trainer, instructor led, etc.) and ongoing options.

Aurigo offers the following training options described in detail below.

- At Implementation Training Options:

- System Administrator Training
- Train-the-Trainer Training (TTT)
- Training Material & Documentation
- Training Environment
- Support for City-led Training (offline support)
- Ongoing Training Options:
 - Annual Recurring Training Sessions
 - Train-the-Trainer Training (TTT)
 - System Administrator Training
 - Refresher Training
 - Videos (pre-recorded videos)
 - Certification Programs

Aurigo's cost proposal only includes the "At Implementation Training Options." The "Ongoing Training Options" are available at an additional cost.

The following briefly describes Aurigo's "At Implementation Training Options."

System Administrator Training

Aurigo proposes a one-time Virtual Instructor-led Training (VILT) for up to fifteen (15) administrative users/IT support staff identified by the City. The course lasts approximately eight (8) hours and includes hands-on activities to adequately prepare the City admin staff to support and maintain the system and its users. System Administrator training comprises user management, user role and access permissions, system and functional configuration, workflow management, and form builder courses. System Administrator training will be delivered virtually (online) using web conferencing tools such as MS Teams or Zoom. The method of instruction includes a topic overview using presentation slides, followed by an in-system demonstration, and finally, in-system hands-on practice for learners. Hands-on activities are conducted using virtual breakout rooms.

Training Material and Documentation for System Administrators:

Aurigo will provide an electronic/soft copy of the following materials:

- Microsoft PowerPoint presentation slide deck (Feature Overview)
- System Administrator documentation in the form of context-sensitive Online Help for administrators accessible from the system

Train-the-Trainer (TTT) Training

Aurigo proposes a one-time Virtual Instructor-led Training (VILT) for up to fifteen (15) City users. The course duration is approximately forty (40) hours delivered across seven (7) consecutive business days with no more than six (6) hours per day. In the TTT training, Aurigo will train key City users on the full system functionality as configured for City business users. The City's trained personnel will then train the City end users. The value of this approach is developing a sustainable

group of in-house trainers for long-term training needs. The TTT training will be delivered virtually (online) using web conferencing tools such as MS Teams/Zoom. The method of instruction includes a topic overview using presentation slides, followed by an in-system demonstration, and finally, in-system hands-on practice for learners. Hands-on activities are conducted using virtual breakout rooms. For the proposed class size of fifteen(15) users, we group learners into two breakout rooms - one led by an Aurigo trainer and another by City SMEs.

Note: For the Train-the-Trainer session, Aurigo expects the City to provide SME/business process experts to support the Aurigo trainer during the training, to respond to the City-specific business process questions from participants, and to support the breakout rooms during hands-on practice.

Aurigo recommends that the identified City trainers be engaged early and participate in project activities for this approach to be most effective. Participating in configuration activities, such as sprint demos and testing, and UAT sessions will prepare them sufficiently before the TTT. At a minimum, the TTT participants MUST be assigned to the (user acceptance testing) UAT to be better prepared before attending TTT. TTT participants will be required to attend TTT in its entirety and may not opt out of specific sessions.

Training Material and Documentation for Train-the-Trainer Training:

Aurigo will provide the electronic/soft copy of the following materials:

- Microsoft PowerPoint presentation slide deck (feature overview) aligned with the courseware designed for the system as configured for the City
- Participant (end-user) Guides with steps for hands-on practice aligned with the TTT courseware
- User documentation in the form of context-sensitive Online Help for end-users accessible from the configured system

Training Environment:

Aurigo will provide an exclusive environment for use during training. Aurigo will provide the training environment with base library data and sample users to support the TTT and System administrator training. If the City requires specific data, the City must provide and assist in configuring the sample data in the training environment. Aurigo will continue to provide access to the TTT training environment for up to thirty (30) days after TTT so the City can use it to deliver end-user training. The City will be responsible for configuring additional data, as required, to deliver the end-user training.

Support for City Trainers (offline support):

Aurigo's proposal assumes that the City will deliver the end-user training post-Aurigo-delivered Train-the-Trainer. Aurigo will provide offline technical support to the City trainers as they prepare to

deliver the end-user training. The scope of support by Aurigo includes the availability of the training environment (same as the TTT environment) and offline support with questions and clarifications to City trainers as they prepare for the end-user training. Aurigo proposes to provide offline support to trainers for up to five (5) hours over a week.

Assumptions:

- If the City identifies the need for Aurigo to deliver additional Train-the-Trainer sessions or End-User training, Aurigo will work with the City to identify the **scope and the costs associated** with it.
- All training is delivered virtually online. The City must provide participants access to computers/laptops with requisite internet connectivity and browsers.
- The City may deliver end-user training with the TTT training materials provided by Aurigo or modify the materials as required to deliver end-user training.
- Aurigo will provide soft copies of all the training materials. The City may print and distribute hard copies to participants.

Note: All proposed training sessions are Virtual Instructor-led Training (VILT). In this method, all training will be delivered by an Aurigo instructor virtually (online) using tools such as MS Teams or Zoom.

Ongoing Training Options:

Here is a brief description of Aurigo's "Ongoing Training Options" offered as optional services and not part of the proposal.

Annual Recurring Training Sessions: Aurigo offers additional training options for an additional cost, as described below.

- **Train-the-Trainer Training (TTT):** Aurigo offers a repeat of the Train-the-Trainer courseware delivered during implementation. The City can arrange for the repeat sessions to occur once or twice annually. The repeat program will use the same materials AND method as during implementation.
- **System Administrator Training:** Aurigo offers a repeat of the System Administrator courseware delivered during implementation. Customers can choose either once annually or twice annually for the repeat sessions. The repeat program will use the same materials and method as during implementation.
- **Refresher Training:** Aurigo offers a refresher training program, typically custom courseware developed for the customer, ranging from 6 to 8 hours courseware. The City can either get a summary (overview) session of the full program as a refresher or choose specific topics to be covered in the refresher program. The refresher program can be adjusted and priced as required.

		<p>Videos (pre-recorded videos): Aurigo offers pre-recorded videos that can be used for ongoing training at an additional cost. Typically our customers avail this service for important business functions. If the City identifies the need, Aurigo will scope the requirements with the City.</p> <p>Certification Programs: Aurigo offers our customers a comprehensive Online Certification Program - "Certified Aurigo Masterworks (CAM)" to our customers. The certification is primarily offered to all the participants of the Aurigo-delivered training, such as Train-the-Trainer and System Administrator training. The certification will align with the system configured for the City. The participants earn their Aurigo Masterworks digitally verified certificate and badge upon completing the program. While the CAM certification program is typically a paid service, Aurigo is pleased to offer the program to the City of Redmond one-time for free at the end of implementation, if desired. If the City chooses to get the certification at some other time in the future, the program will be a paid service.</p>
R	15. Web browser agnostic (Microsoft Edge, Chrome, Firefox).	Masterworks is accessible via the web using a standard browser such as Google Chrome, Apple Safari, Mozilla Firefox, and Microsoft Edge.
R	16. Ability to support Microsoft Active Directory for single sign-on.	Masterworks can support Single Sign-On through authentication providers like Active Directory Federation Services (ADFS), Lightweight Directory Access Protocol (LDAP), Microsoft/Azure Active Directory, Okta, Duo, OneLogin, Ping Identity, and CyberArk.
I	17. Multi-factor authentication or integration.	Masterworks provides an Identity Services utility with login options such as standard username and password, Single Sign-On, and Multi-Factor Authentication. These options will allow the City to customize the access security to meet its needs.
R	18. Configurable user access.	Masterworks' role-based permission capabilities will allow the City to control access by configuring user roles that uniquely identify the groups to which users belong. Each user role can be given permissions that control user access to data, forms, reports, dashboards, and documents. These role-based features will allow the City to manage user access effectively and ensure that the right individuals have the appropriate permissions. Users can be assigned to one or more roles based on their responsibilities and data access requirements. Permissions granted to a role are automatically extended to the users assigned to that role, streamlining the permission management process and ensuring consistency. This flexible approach will allow System Administrators to tailor permissions for each role, ensuring users have access only to the data and functionalities relevant to their responsibilities.
R	19. User and role-based security.	Masterworks utilizes role-based permissions for internal access and security. System Administrators will have roles that allow them to view and edit all roles and permissions across the application. The security roles assigned to a user will determine what data, forms, and reports the user can access.

R	20. Configurable menus, screens, and dashboards.	Masterworks' Configuration Toolkit has tools that allow authorized users to configure forms (screens), workflows, reports, and dashboards. The menus depend on the software that makes up the City's solution. The menu structure will be configured during implementation.
R	21. List integration tools or web services and describe integration interfaces (e.g., application programming interfaces, web services, etc.).	<p>Masterworks is purpose-built to be an integration-friendly solution. Masterworks has a standard, flexible Open API that can be used to integrate the City's solution with nearly all third-party software and middleware. Aurigo applies Service Oriented Approach (SOA) principles to its integrations to help transform IT systems, applications, and data sources into highly flexible and reusable services. Masterworks also supports manual import/export, batched, and real-time integrations. The Open API has numerous pre-built web service-based APIs that any application can consume.</p> <p>Aurigo has integrated its Masterworks solution with many systems:</p> <ul style="list-style-type: none"> • Project and Portfolio management system - Primavera P6 • Project Scheduling - MS Project, Primavera P6 • Finance and Accounting - JD Edwards, Oracle EBS, PeopleSoft, SAP, Workday • Geo Location - Esri ArcGIS • Document management systems - LaserFische, ProjectWise, SharePoint • Design systems - iPD (Exevision) • Construction Management - Aashtoware FieldManager, Aashtoware Project Construction & Materials <p>Aurigo utilizes the following practices to develop integrations:</p> <ul style="list-style-type: none"> • Determine the Touchpoints - Aurigo will conduct integration workshops with the City SMEs to identify the integration touchpoints with each application. Doing so will help the City understand the overall data flow between the systems and design an optimal solution. • Define the Data Model - Aurigo Solution Architects will elaborate on all the touchpoints identified with the technical team of each interfaced application to identify data attributes flowing between the systems (data mapping), workflows, schedules (real-time or batch), and modes of communication. • Document the Approach - Aurigo will prepare a technical interface document for the Aurigo and City configuration teams that provides all the details required to configure the interfaces. • Test the Integration: The Aurigo Integration Specialist will ensure test data flows between Masterworks and the integrated systems as expected. This test will be performed on a staging or test implementation of the system in production. The development environment will be used for this portion of the test. • User Acceptance Testing: Integrations between Masterworks and the integrated system will be tested to determine the appropriate data flows between systems with the expected

		<p>triggers or scheduled batch times. City and Aurigo teams then verify the data to ensure it is accurate and acceptable. User Acceptance Testing will take place in a dedicated UAT environment.</p> <ul style="list-style-type: none"> • Go-Live Cutover: Once Masterworks goes live, the integration will be pointed to the production environment. The integrations will be closely monitored during the hyper-care warranty period to ensure everything works as expected. <p>Aurigo has a dedicated team of Integration Specialists that develop and deploy intelligent and efficient system integrations. The team has specialized knowledge of the Aurigo APIs and batch processing capabilities. Aurigo's approach to configuring system integrations will significantly reduce the risks for the City.</p>
	22. Major key systems for interface or integration. Explain how your system might integrate or replace this solution, and if you have experience with it:	
R	A. Power BI (Reporting/Data Warehouse)	Masterworks has a highly adaptable API system that can be used to integrate the City's new solution with third-party reporting and data warehouse applications. This creates a powerful data repository that enables tracking and reporting of projects at an enterprise level. The City can integrate data and workflows in real-time, ensuring accurate and current information in all integrated systems. Masterworks' reporting capabilities can replace third-party reporting tools like Power BI. Our Report Builder tool has SSRS capabilities the City can use to recreate the reports and functions found in Power BI. Aurigo has experience integrating its Masterworks solutions with third-party reporting tools. Masterworks' APIs can integrate the proposed solution with Power BI if the City decides to continue using that software. Data can be regularly exported from Masterworks and uploaded into Power BI.
R	B. MS Office (Excel, Word, etc.)	Masterworks can be integrated with Microsoft Office 365, MS Teams, and One Drive. Workflows in Masterworks can send email notifications to users via Microsoft Office 365. Additional discussions may be required to fully define the City's requirements and scope for integrating with Microsoft Office apps.
R	C. Microsoft D365 Finance and Operations (Financials/Project Accounting)	Masterworks can be integrated with the Microsoft D365 finance and operations system. Additional discussions will be required to fully define the City's requirements and determine the scope and potential costs for implementing the functionality.
R	D. DocuSign (electronic signature)	Masterworks comes with APIs that can be used to integrate the City's solution with DocuSign. Masterworks' Open API can also be used for integrations with other digital signature applications. The City will be responsible for purchasing and maintaining the licenses for the eSignature applications.
R	E. Microsoft Azure Active Directory (Authentication)	Masterworks can be integrated with several Single Sign-On (SSO) providers for authentication, including Microsoft Azure Active Directory.

R	F. Bluebeam Revu (Plan Review and Construction Document Management)	Masterworks can be integrated with Bluebeam using its Open API. Files created or edited in Bluebeam can be uploaded into the solution, and Masterworks will maintain a version history each time a document is uploaded.
R	G. ESRI ArcGIS (Geographical Information System)	Masterworks comes with APIs that can be used to integrate the City's solution with Esri ArcGIS. Map screens and controls can be enabled on location-related forms like project, issue, and risk forms. Additionally, Masterworks has a map viewer that can display multiple locations at the enterprise level.
I	H. Autodesk PlanGrid/Build (Inspections/Punch List)	Aurigo has an exclusive partnership with Autodesk, the leading design and construction technology company. The two companies have created software integration connectors between Autodesk's and Aurigo's systems to bring together best-in-class design and construction products for public agencies, private owners, and contractors. Masterworks can be integrated with Autodesk PlanGrid, the popular Autodesk Construction Cloud mobile contractor application. The integration will give the City's contractors working on public infrastructure projects an easy way to access Aurigo project files from their mobile devices, including inspection data stored in Masterworks and the punch lists associated with the projects the contractors are working on.
I	I. SharePoint (Collaboration)	Masterworks can be integrated with the City's SharePoint instance for transferring documents between the two systems. Workflows can be configured to monitor document additions and changes on Masterworks and transfer the documents to SharePoint when needed.
I	J. Microsoft Project (Project Management)	Masterworks has full-fledged project scheduling capabilities, allowing the City to plan its projects in detail. In addition, the solution can seamlessly integrate with other project planning applications such as Microsoft Project and Primavera.
I	K. MS Outlook (Email)	Masterworks integrates with Microsoft Outlook for sending email notifications. Notifications can be sent based on a user's workflow actions or specific triggers defined in the system. Masterworks also has an Outlook plugin that can be installed on a user's client system. It will allow users to upload email contents and attached documents to Masterworks folders directly. Aurigo will work with the City's IT personnel to configure how Masterworks will integrate with the City's email systems.
I	L. Lucity (Asset Management)	Masterworks has Asset Management capabilities, including a library of business processes (e.g., forms, workflows, reports, etc.) that can be implemented and configured to the City's requirements. Based on Aurigo's experience with its other clients, the Masterworks solution is generally used to capture and manage assets during the project execution. After the project is closed out, the asset information can be exported or integrated into the City's Lucity asset management system. Further discussion is required to determine how the City could best utilize Masterworks' asset management capabilities.

E	M. Energov (Permitting)	Masterworks has a Permitting product as part of its Enterprise suite. It includes a library of business processes (e.g., forms, workflows, reports, etc.) that can be implemented and configured to the City's requirements. Based on Aurigo's experience with its other clients, the Masterworks Permitting product is used to configure business processes for tracking and managing project permits. Further discussion is required to determine how the City could best utilize Masterworks' Permitting product.
R	23. Mobile Strategy: App and/or Hyper Text Markup Language5 (iOS and Android).	Aurigo's Masterworks Mobile application runs on the latest and two most recent previous versions of iOS, Android, and Windows Mobile. Masterworks is also compatible with Windows PCs, tablets, and Windows, iOS, and Android mobile devices using standard browsers.
I	24. Store and forward capability (support mobile offline work).	The Masterworks Mobile app gives users in the field the flexibility to easily submit and respond to processes, view and annotate documents, and, most importantly, work offline when there is no internet connection. Data entered or changed on mobile devices in the field automatically syncs when internet connectivity is restored.
I	25. Ability to download documents for offline access (different from above) on mobile devices.	Users can download documents to their mobile devices while connected to the internet, including documents related to assets, inspections, work orders, warranties, specifications, and maintenance schedules. The documents will then be available for viewing in the field using the Masterworks Mobile app, even if the mobile device has no connectivity.
I	26. Data encryption in transit and at rest.	Masterworks encrypts data in transit using accepted HTTPS and TLS 1.2 protocols. Data at rest is encrypted with AES 256-bit encryption.
R	27. Meets System and Organization Compliance 2 standards.	<p>Aurigo serves many clients in the public and private sectors who require Aurigo to provide comprehensive compliance controls and meet multiple Federal and State security standards. Aurigo maintains the following key compliance certifications and standards:</p> <ul style="list-style-type: none"> • SOC 2 Type 2 (SSAE 18) Certified • NIST 800-53 (Rev. 4) Moderate Baseline Compliant • FedRAMP In Process • StateRAMP Ready • ISO 22301:2019 Certified <p>Aurigo has also achieved the Amazon Web Services (AWS) Government Competency status. This accreditation recognizes Aurigo as an AWS partner with deep domain knowledge and the ability to deploy solutions seamlessly through the AWS platform.</p>
R	28. Documented disaster recovery/business continuity policies (if cloud deployed).	Aurigo has developed a comprehensive Business Continuity and Disaster Recovery (BC/DR) Plan to ensure the continuity of its primary business functions and address potential disruptions. The plan is ISO22301:2019 certified and utilizes the AWS North Virginia region as the primary data center. Regular backups are stored in the secondary AWS Oregon regional data center, with additional backups stored on servers in separate buildings within the Virginia regional data center. Aurigo can restore backups in the event of a catastrophic server failure in the Virginia regional data center.

		Aurigo's BC/DR plan also includes maintaining an always-up-to-date backup of client implementations, configurations, and data. The backups fully comply with the NIST 800-53 data backup, recovery, and retention standards. Masterworks is SOC 2 Type 2 certified, and the backup procedures and practices incorporate all the practices related to business recovery, including the software and support services. Aurigo uses the BC/DR plan to provide a reliable and secure environment for its operations and valued clients.
R	29. Configurable data retention policy with alerts for automatic document deletion.	Masterworks will retain the City's data in the solution as long as the system is active and there is an active contract. Only authorized users can delete data within the solution. Data retention rules can be configured to meet the City's data retention policies. They will vary per the Support Plan chosen by the City. For example, Masterworks can be configured to allow authorized users to select documents and dispose of them only after the data retention requirements are met. Additional data retention capabilities can be provided at an additional cost.
I	30. What are your file size limitations? (looking for unlimited file size)	There is no theoretical size limit for files uploaded into the solution. However, the City can set a maximum file size limit as part of the solution's settings. Masterworks comes with 2 TB of data storage in the Annual Subscription Fee. Additional storage is available for an additional annual fee.
I	31. Support metadata searches.	Masterworks can search document metadata fields. Metadata can be defined based on the type of document.
I	32. Describe how conditional logic is used in data entry, e.g., use an if-do condition to show or hide different fields based on an answer to a previous question.	The City can configure business-specific forms in Masterworks. Using the Form Builder tool, the forms can be configured to utilize logic and business rules defined by the City to perform various functions. These functions include validating data entries, calculating totals, and displaying error messages when necessary. Additionally, logic can be added to create dropdown lists of valid entries, perform automatic searches, display data from other tables or systems, and show or hide fields based on user permissions.
General Requirements		
R	33. User definable rules-based workflow, including configurable multi-channel notifications (email, system notifications, popups, etc.).	Masterworks comes with a built-in workflow engine with an easy-to-use Workflow Designer tool. The workflow engine can process City-definable processing rules. As part of the implementation, Aurigo will configure key business processes and train City-designated System Administrators to configure additional business processes. The workflow engine and Workflow Designer tool provide the ability to easily: <ul style="list-style-type: none"> • Create simple or multistage workflows. • Support manual, ball-in-court routing between users • Perform complex validation rules using expressions. • Generate notifications via email and in-app task lists. • Push or fetch data from other systems • Trigger secondary or parallel workflows automatically. • Track approval history

		<ul style="list-style-type: none"> • Generate notifications that address multiple items per user rather than a separate notification for each action.
R	34. Near real-time project data collaboration and co-authoring of information.	Masterworks allows authorized users to perform real-time data collaboration and co-authoring of information. All authorized users can access and update the same data source simultaneously.
I	35. Notifications that can be triggered by status changes (e.g., when a document is modified or approved).	Masterworks' workflow engine can send automated notifications upon any status change.
R	36. Visual view of workflows.	Masterworks' Workflow Designer tool allows authorized users to view graphical representations of workflows.
I	37. Workflow delegation capability.	Masterworks' Workflow Designer tool can delegate actions in a workflow to specific users or used groups if the user or group has permission to access the data or forms. Authorized users can delegate an action or task to another user for a defined timeframe if the user originally assigned is unavailable. All workflow tasks get assigned to delegated users automatically with appropriate email notifications when a workflow is initiated or a workflow stage is completed.
N	38. Ability to share large data files with users not permissioned to the project or system.	Masterworks does not allow sharing data files with non-registered or non-permissioned users as a security measure. Authorized users can download files and distribute them manually.
R	39. Drill-down to source transactions.	Masterworks allows authorized users to drill down to source transactions based on information availability and data attributes. However, configurations may be required to allow drill-down capabilities on some reports and dashboards.
R	40. Attach documents to transactions within the system.	Masterworks allows authorized users to attach documents to a project record within the solution. The documents can be referred to in any workflow or process. Also, links to the uploaded documents can be shared.
R	41. Wild card searches and queries.	Masterworks' enterprise search feature allows users to search for information in the database and document metadata using wild cards in the parameters.
I	42. Ability to create and search user-defined fields.	System Administrators and authorized users can add custom fields on all forms. All fields on a form can be used to enter parameters for queries and reports.
R	43. Audit trail with date, time, user stamp and historical values for all data fields including metadata and chats.	All data changes can be tracked, and an audit trail can be maintained using Masterworks' audit log functionality. With every change in data, the system can capture the user details, date, timestamp, previous value, new value, and action type. Audit Logs can be exported to Excel files and downloaded for analysis. Additionally, version control can be configured to ensure that a history of changes is captured for each change to a database record.
N	44. Context-sensitive help & ability to add City specific help information.	Aurigo will provide context-sensitive Online Help as part of the solution implementation, accessible via the Help menu button incorporated into the solution. The help files will be specific to the City's solution configuration. Any customizations or addition of City-

		specific help information will need to be provided by Aurigo's Professional Services group.
R	45. Library of pre-loaded documents/checklists including hyperlinks.	Masterworks' document management capabilities will include a repository for electronically storing and tracking documents, checklists, specifications, and manuals. The solution will facilitate the organization of the repository with documents logically and hierarchically stored in project folders and sub-folders to ensure consistency across the enterprise. Each document in the repository can be accessed using a hyperlink.
R	46. Ability for external entities (contractors and consultants) to access system with security.	Authorized users can access the City's solution anytime, anywhere on the internet, using standard web browsers such as Google Chrome, Apple Safari, Mozilla Firefox, and Microsoft Edge. The City's System Administrators can create user accounts that give external users access to only specific projects and functions in the solution. Authorized external users can log into the system and submit applications, upload drawings, access project information, and perform other activities permitted by their user roles. All activities performed in the solution by external users will be traceable using the user's unique account ID.
I	47. Functionality to create and enforce naming standards.	Masterworks can be configured to enforce naming standards. System Administrators can manage solution-wide settings such as file names cannot be longer than 128 characters or passwords must be fourteen characters in length or greater. The data entry forms used in the solution can also be configured to enforce naming standards. For example, names for new projects must end in the four-digit year in which the project was initiated (e.g., RedmondCityProject - 2023).
N	48. Ability to track permit requirements.	Permit requirements can be defined and maintained in one or more tables in the Masterworks Library. The forms used to track and maintain permit information for the City can be configured to use the permit requirements for validating data entered on the forms.
R	Finance	
R	49. Prepare and maintain project budgets based on custom templates, e.g., transportation, water, sewer, storm, etc.	Masterworks can use templates to create project budgets for each type of project the City manages. Budget templates can be configured to set up business processes, budget limitations, workflows, standard libraries, and document requirements. The associated project budget template will be applied whenever a new project is created for a City department.
R	50. Support Capital Investment Program Portfolio budgeting – biennium (every 2 years) and 6-year proposals.	Masterworks' Capital Planning and Portfolio Management product has budgeting features that will help the City build and maintain its capital investment program and portfolio budgets at a detailed level. Budgets defined and approved for each project will roll up to the program or portfolio level. The City will have everything it needs to plan and manage large, multi-year budgets for capital, infrastructure, and maintenance programs and portfolios.
R	51. Support creating budget documents such as project information sheets, graphics, etc.	The Report Designer in Masterworks can be used to create budget-related reports and dashboards that meet the City's business requirements. The reports and dashboards can contain detailed data

		lists, graphics, etc. They can be configured to display funding sources and revisions, budget allocations and cash flows, and itemized costs.
R	52. Track funding sources by fund, project, phase, month, year, grant, taxes, REET, etc.	Masterworks' fund management capabilities can be used to track multiple funding sources by fund, project, phase, month, year, grant, taxes, or REET. Each funding source can be used to fund multiple projects. Funding for projects can include fixed amounts from one or more funding sources or multiple amounts from multiple funds assigned as a percentage from each fund.
R	53. Track multiple funding sources to a project (grant, revenues, REET, etc.).	Masterworks' fund management features include tracking multiple funding sources for a project, such as funding from grants, revenues, REET, etc.
R	54. Ability to allocate and reallocate funding.	Authorized users can allocate and reallocate funding for budgets, and budget amounts for projects down to the task level.
R	55. Project management integrates to D365 Finance and Operations (project accounting), including revenues and expenditures, project staffing, and date fields from the project schedule.	Masterworks can be integrated with finance and operations systems like Microsoft's D365 using the Open APIs. Aurigo will work with the City's SMEs to understand the requirements in detail, conduct the data mapping sessions, and configure the integrations.
R	56. Real-time visibility of project finances (budgets, forecasts, actuals, etc.) by location, by project, by project phase, by project line item.	Masterworks can provide real-time visibility of project finances. Reports and dashboards that show current budgets, forecasts, and actuals by location, project, project phase, and project line item can be configured.
R	57. Project-specific budget and revenue to actuals reporting.	Reports and dashboards that show project-specific budgets and funding revenues to actuals can be configured.
R	58. Project change order tracking/history.	Masterworks has Change Order capabilities. Change Orders can be initiated for multiple aspects of a project or contract. Relevant documents can be attached to support the change requests. Approval workflows can align with the City's business processes. Once a Change Order is fully approved, the affected project or contract will automatically be updated.
N	59. Forecasting capability, including long term (i.e: 6, 10 and 25 year) cost/revenue escalation or de-escalation.	Masterworks has forecasting capabilities at project and contract levels. Forecasts can include allocations for long-term cost or revenue escalation and de-escalation. Linear and non-linear distribution curves can be used to calculate forecasts. The solution can automatically generate forecasts for the defined budget estimates. Also, the solution will enable users to adjust the distributed costs in the forecast. Once an optimum forecast is determined, the user can route it for review and approval via a workflow. The system can also generate a blended forecast that considers actual spending history.
I	60. Ability to create and manage what/if scenarios.	Masterworks enables users to perform what-if analysis both at project and program levels. For a project, the user can create multiple budget estimates, each with multiple cash flow forecasts. This enables users to do what-if comparisons using different budgets and cashflows and finally zero in on the optimum budget. Users can perform what-if analysis at the program level using a unique feature called 'fund-based what-if.' The feature lets users view and perform what-if analysis based on fund sources. Having clarity on fund-specific

		project requirements and available funds, users can determine the best project mix.
R	61. Manage project pay estimates/pay requests to contractors.	Masterworks allows authorized users to create payment requests (pay estimates) from the dailies. Workflows will be configured for approving the dailies and pay estimates. Contractors can request their pay estimates in Masterworks, which can then be routed to the City's staff for approval.
R	62. Functionality to support billing multiple schedules and project numbers.	Masterworks can be integrated with the City's financial systems to support invoicing processes that include multiple project numbers and billing schedules.
N	63. Track materials on hand.	Masterworks can track quantity and payments for construction materials. Materials can be identified as Material on hand (MOH), and amounts can be deducted when the material is used. A pay estimate can automatically be issued to reimburse the vendor as the materials are consumed.
R	64. Pay estimate/pay request workflow – approvers, contractors, PM, etc. (including workflow to external partners).	Workflows can be configured to manage the review and approval of pay estimates. The workflows can have multiple approval stages, and required approvals from stakeholders, including external users, can be dynamically determined based on factors such as payment amount, the department making the payment, the type of vendor being reimbursed, etc.
R	65. Manage invoice tracking by vendor, project, and contract.	Masterworks can be integrated with the City's financial systems. The solution can track invoices by vendor, project, and contract. Data from vendor invoices can be entered into the solution and matched with pay estimates. Workflows can be configured to manage the reviews and approvals of invoices. Approval to pay a vendor can then be sent to the City's financial systems, where the payment is initiated and processed. Once payment is confirmed, the invoice and payment data can be sent back to Masterworks, where the invoice will be marked as paid. Adjustments to contract items and materials on hand will automatically be made. Reports can be configured to show invoicing activity by vendor, project, or contract.
N	66. Support grant applications, to include details needed for grant applications such as project classification (e.g., pedestrian safety).	The ability to support grant applications is a functionality that will be configured in Masterworks. Aurigo's Business Analyst and Solution Architect will work with the City's SMEs to fully understand the requirements, develop a plan, and cost estimation for implementing the functionality.
I	67. Describe grant management/tracking functionality.	Grant management functionality will be a configurable effort. More information is required to understand the City's requirements fully. At a minimum, new forms, workflows, and reports must be configured to support tracking grant submissions, execution, and expiration dates. Aurigo's Business Analyst and Solution Architect will work with the City's SMEs to fully understand the requirements, develop a plan, and cost estimation for implementing the functionality.
I	68. Support for D365 grant billing and invoicing.	Masterworks can be integrated with the City's D365 financial system. Invoicing and grant billing can be managed in the D365 system, and

		the grant data can be transferred back to Masterworks, where it can be used for further processing, decision-making, and reporting.
I	69. Support grant-specific reporting requirements (restricted funds, etc.).	Grant restriction information can be maintained in the Masterworks Library. The restrictions can be used to determine how funds can be applied to projects and contracts. Reports and dashboards can be configured to show grants, their initial and remaining amounts, and the restrictions that apply to them.
R	70. Escalate/de-escalate project cost/revenue based on schedule changes and inflation.	Masterworks' cost estimation capabilities can be used to determine how project funds, budgets, and costs must be adjusted based on schedule and inflation changes. What-if analysis can show the effects on a project and other projects in a program or portfolio. New estimates can be created manually using information from previous budgets or current or previous bid estimates. Data from external systems can also be imported. Linear regression-based cost projections for the current period can be based on past data and historical cost inflation.
R	Project/Portfolio Management	
R	71. Support full Capital Investment Program project cycle at project and portfolio level.	<p>Masterworks has program and portfolio planning capabilities to help the City track numerous projects, allocate funds to the right projects, manage multi-year schedules, and keep projects within budget. It brings together everything the City needs to group projects into portfolios and programs. Program/Portfolio Managers and Directors will have access to screen forms, reports, and dashboards that can assist them in managing the business. Masterworks comes with standard reports and dashboards that show KPIs and metrics at the program, portfolio, and project levels.</p> <p>The City can use the Report Builder functionality in Masterworks to configure additional reports and dashboards that show project-related metrics such as project health, schedules, KPIs, cash flows, budget status, and funding availability. The City can configure dashboards that display administrator-level information for the Program/Portfolio Managers and Directors. From within the program/portfolio/project reports and dashboards, administrative users can drill down from the program/portfolio level to the project details or roll up from the project level. Users can display a summary of schedules at the program and portfolio levels, and Masterworks can perform what-if analyses on projects within programs and portfolios.</p>
R	72. Manage long range planning periods of 6 to 25 years.	Masterworks can manage planning periods from one month to 25+ years. It can also manage planning for fiscal periods that are not the same as calendar periods.
I	73. Electronic submittal and tracking of project requests.	Masterworks has standard capabilities allowing the City to submit project requests (Project Needs) in the Masterworks solution. The requests can contain expected project duration, cost estimates, relevant business units, strategic goals, and other important details that define the project. All scope specification documents can be attached to the requests. Once completed and saved, the requests can be sent for review and approval through using pre-configured

		workflows. Once approved, the requests can be used to create formal planned projects in the solution.
R	74. Support project charter development.	Fields can be added to the Project Needs forms for developing a project charter for each proposed project. Stakeholders can be invited to provide their take on a project's requirements and goals. The solution can record ideas from the stakeholders, and the information can be used to develop a project charter that defines the project's purpose. A Project Charter report can be configured to pull information from the project intake request and stakeholder feedback to create a formal project charter document formatted per the City's requirements. The Aurigo Team will work with the City's SMEs to map the Project Charter data requirements and ensure the fields are included on the Project Needs intake forms.
R	75. Support business case development.	Fields can be added to the Project Needs forms for developing a business case for each proposed project. Stakeholders can be invited to provide their take on the project needs to be approved. The solution can record ideas from the stakeholders, supporting documents can be attached, and the information can be used to develop a business case that describes the project's benefits. The solution can be configured to pull information from the project intake request and stakeholder feedback to create a business case document formatted per the City's requirements. The Aurigo Team will work with the City's SMEs to map the business case data requirements and ensure the fields are included on the Project Needs intake forms.
I	76. Develop project cost estimates.	Masterworks has standard capabilities for developing project cost estimates from the City's independent research and information gathered from past projects. Project cost estimate data can be created manually, imported from external sources, gleaned from previous budgets, or taken from current or previous bid estimates. Masterworks also offers linear regression-based cost projections for the current period based on historical cost trends and inflation predictions. Multiple cost estimates can be created for each project, and workflows can be configured to allow the appropriate stakeholders to approve or reject an estimate.
R	77. Prioritize and rank projects by a user defined set of criteria, such as strategic goals, grant opportunity, preservation of assets, etc.	Masterworks has standard project scoring capabilities. Fields can be added to project forms for gathering project-specific attributes and assigning values to those attributes. The City can configure questionnaires specific to the type of project. Users can score and rank projects based on the City's business criteria. Users can also score and set priorities for multiple projects within a program or enterprise.
I	78. Maintain information on unfunded projects for consideration in future years.	Masterworks allows users to maintain and securely store information on projects that have not received funding, remain unapproved or have already concluded (closed) until the City deems it appropriate to either archive or delete the project data. The City can return to unfunded and unapproved projects and reconsider them. Masterworks allows authorized users to retrieve and edit information in unapproved projects anytime.

R	79. Track project name changes with history.	Masterworks can track changes made in the solution, and an audit trail can be maintained using Masterworks' audit log functionality. The solution can capture user details, timestamps, previous values, new values, and action types.
I	80. Geographical Information System integration with projects.	Masterworks comes standard with APIs that can be used to integrate the City's solution with ESRI ArcGIS (GIS) and other third-party mapping applications. The GIS capabilities in Masterworks will allow the creation of geo-tagged objects for parcels, projects, current issues, and risk locations. Location-related forms, such as project, parcel, issue, and risk forms, will enable maps and map controls by default. Consolidated location information can be viewed at the enterprise level, and GIS search functionality can be enhanced to search by coordinates. Certain objects found in GIS layers can be read and updated directly within Masterworks. Any GIS information updated in Masterworks will auto-update back into ArcGIS layers. If design consultants provide the City with GIS objects that show read/write impacts, Aurigo can design customized functions within Masterworks that upload the objects into the appropriate GIS layers.
R	81. Project scheduling tools (color-coding, Gantt charting, flow charts, widgets, drag and drop, etc.). Briefly describe capabilities.	Masterworks has full-fledged project scheduling capabilities that can be used to plan projects in detail. The project scheduler allows users to break down project deliverables into manageable sub-components and task schedules and track the progress of project tasks. Forms can be configured to capture project and task information. Reports and dashboards can be configured to display project schedule information. Masterworks supports project scheduling techniques such as Gantt Charts, flow charts, widgets, and drag-and-drop as standard functionality.
R	82. Develop a project scope, cost estimate, schedule and baseline, including the ability to create snapshots at various project milestones including initiation, 30%, 60%, and 90% design, etc.	Masterworks provides the ability to capture project information like project details, costs, and schedules for creating a project scoping document. All fields can be configured to match the City's fields and nomenclature. Users can create detailed schedules for specific milestones and baseline them. Masterworks includes a budget estimating feature. Multiple versions of the budget can be created for a project, including hierarchical cost breakdown structures. The sub-totals and grand totals are generated at summary levels. Resource information can be captured along with the costs. Estimates, once created, can be routed in a workflow for review and approval based on the organization's review process. Multiple attributes can be applied based on client expectations and requirements. A snapshot option enables the capture of schedule progress at different project stages. Project information can be exported in different file formats to create project-scoping documents.
R	83. Project schedules can be rolled into portfolio level schedules in summary and detail.	Masterworks Capital Planning and Portfolio Management capabilities will allow the City to roll up project schedules in summary and detail within programs and portfolios.
R	84. View portfolio budget summary and detail, including cash flow summary and analysis.	The City can view budget summaries and details at the program and portfolio levels, including cash flow summaries and analysis. Reports and dashboards can also be configured to show budget summaries and details at the project, program, and portfolio levels.

R	85. Create and manage dynamic, editable checklists for adherence to business rules, federal or state statutes; discuss how your software handles new tasks added to a checklist at a point prior to the current status of a project.	The City can create checklists for any purpose and project stage. Checklists are user-configurable based on business needs. Different stages and business processes can have separate checklists, like during project scope definition or project closeout. Workflows can be configured to manage processing and tracking reviews and approvals. For example, a checklist for a project quality audit can be configured. The associated workflow will enforce the City's business processes, like determining at what project stage an audit must be completed, what activities must take place during the audit, when and what stakeholders must review the project deliverables and approve their quality, and what documents are required to accompany the audit. As activities on the checklist are completed, the solution will capture usernames, timestamps, and user comments. Authorized users can modify checklists, including adding new items or modifying existing items on the list that have not already been marked as complete.
I	86. Checklists have full workflow capability with configurable rules.	Masterworks' Workflow Designer tool will allow the City to configure workflows for checklists that match the City's business processes and comply with business rules.
R	87. Support workforce planning and management.	Masterworks has Resource Management capabilities for planning, allocating, and managing resources efficiently. Project Managers (PMs) can identify and allocate resources for a single project and concurrently on multiple projects and tasks. Every project task has a resource allocation grid, and the PM can decide what roles are required to complete the task. The total cost for a task is determined based on the resources assigned and their rates. The number of available hours per day and the hourly rates for resources are kept in the Masterworks Library. Once resource allocation is completed, the PM can view the allocations across all projects, including over or underutilization details.
R	88. Short-term and long-term workforce projections.	Masterworks has short and long-term maintenance planning capabilities that use project schedules, work orders, and projected resource requirements. Reports highlighting capacity shortages or excesses for labor, materials, or other resources can be configured.
I	89. Shared calendar/work loading features.	Masterworks can use a shared calendar for each project. The calendar is used to define project working days, task durations, workloads, budget planning, and cash flow estimations. Common calendars can be defined and stored in the Library. Project Manager can select the best calendar for their project or define a new one.
R	90. Manage resource allocations by percentage or hour, and visually identify if resources are over allocated.	Masterworks can allocate resources by percentage of the resource's time or specific days or hours. It also comes with standard reports and dashboards that show how resources are allocated on a single project and across all projects utilizing a resource. Authorized users can visually identify resources that are over and underutilized.
R	91. Manage resources by individuals or groups.	Project Managers can use the Resource Management capabilities in Masterworks to manage resources by individuals or groups. Individuals will be identified as belonging to a specific group by the user role assigned to them. External users who do not have logins to

		the solution will be identified as belonging to a designated group assigned to them in the Library resource tables.
R	92. Assign and track staff assignments within the portfolio schedule.	Masterworks' scheduling features are used to assign staff to tasks in projects. Staff assignments can be tracked at the portfolio level using reports and dashboards configured to display staff assignments across multiple projects.
R	93. Ability to set up alerts & notifications based on status, due dates, actions, approvals, etc.	The City can use the Workflow Designer to configure workflows for issuing alerts and notifications. The workflows can be set up to monitor certain events, like impending due dates, past due actions, approvals, or when actions are performed in the solution. The workflows can then send alerts or notifications. The workflows determine what users or user groups will get notifications based on assigned user roles and what actions must occur after previous actions have been reviewed or approved. The My Tasks feature on each user's home page will inform them of pending action items.
R	94. Support progress notes - scrolling/continuous format from the previous period's notes.	Freeform text fields can be added to any form. The text fields can be used to enter progress notes. Users can add new text to the bottom after the text is already entered in the field.
I	95. Create additional forms or workflows based on project criteria, e.g., a request for a building valuation for renovation projects.	Masterworks can create and maintain project forms and workflows using templates configured by the City. The templates can include settings for managing business processes, workflows, standard libraries, and document templates. The templates and resulting forms and workflows can be based on the nature of the project or contract. The associated template will be applied whenever a new project or contract is created for a particular business process. Fields for project attributes can be added to forms and are easily configurable to save additional project information. The City's standard project attributes can be optionally added to every project created in Masterworks.
R	96. Combine and split projects.	Masterworks has full-fledged project scheduling capabilities that can be used to plan projects in detail, including combining or splitting them. The project scheduler allows users to break down project deliverables into manageable sub-components and tasks, schedule the project tasks, and track the progress. Forms can be configured to capture project and task information. Reports and dashboards can be configured to display project schedule information.
R	97. Analysis of changes to the Capital Investment Program portfolio at various intervals.	Masterworks' Program Revision features can record CIP details as individual records in a Library table with all process details like who, when, and why. Approved changes to the CIP can be updated in the solution using forms and workflows configured specifically for the task. Masterworks can track changes made to the CIP, and an audit trail can be maintained using Masterworks audit log functionality.
R	98. Ability to link projects with schedule or budget dependencies (e.g., the start of one is dependent on the completion of another).	Sequencing, scheduling, and re-scheduling projects within a program can be carried out using Masterworks' what-if analysis capabilities to identify necessary changes and then adjust individual projects. Masterworks currently does not support linking projects with schedule or budget dependencies.

R	99. Ability to add project classifications to portfolio section. Need more granular level of tracking, e.g., stormwater - distribution, collection, etc.	Project attribute fields can be added to the project forms for tracking project classifications. The project classifications can be used to group projects at the program and portfolio levels. The classifications can also filter project data on reports and dashboards.
R	Contract/Bid Management	
R	100. Manage consultant/vendor/contractor solicitation, proposal review, and selection.	Masterworks' vendor management capabilities will allow users to select and qualify a vendor based on the criteria set by the City. The approval status of the vendor is maintained in the vendor details. Masterworks' Estimation and Bidding product provides full procurement and bid management features that support the development of bid packages, management of solicitation invites, enforcement of bid open and close dates, collection of bids, comparison bids, and awarding contracts. The product can create commitments and value statements for all procurements. The City can compare bids with the engineer's estimate and identify differences in unit bid prices between bidders and the engineer's estimate. The analysis provided by these features enables managers to determine the most competitive bid before awarding.
I	101. Bid portal functionality for posting/submitting bids electronically (Currently using Builders Exchange of WA).	Contractors can be given a login to Masterworks and access the solution's vendor management and bidding functionality. They can be given access to forms used for bidding on projects, submitting certifications, and accessing bid documentation.
I	102. Support Electronic Bid Management, including: <ul style="list-style-type: none"> • Post and receive solicitations • Manage addendums • Bid review including unbalanced bid items • Bid tabulation • Track historical trends at an item-level 	<p>The Bid Management features in Masterworks will allow external users and contractors to submit bids by following the City's defined processes for bidding. Separate data tables and maintenance processes can be created in the Library to manage bid and non-bid items. The information gathered can be used for project estimates based on business rules defined by the City.</p> <p>A contractor can enter bid information into the solution using screen forms configured specifically for that purpose. A workflow associated with the bidding process will then notify internal users when a bid has been entered and uploaded. The City can define business rules determining whether contractors can update their bid information before the bid opening date. Masterworks has Bid Tabulation functionality, allowing data analysis in a spreadsheet format. The bid functionality also allows for creating an addendum to an issued bid and attaching items to the addendum.</p>
R	103. Create project forms based on a defined project attribute (e.g., Small Works or Federal Aid, Transportation, Building, Stormwater, etc.).	Masterworks can create user-defined tables in the Library with fields for defining project attributes. Fields can be added to project forms for tracking the project attributes. Data entry will be validated against the information in the Library tables. The attributes can also filter data on reports and dashboards.
R	104. Effective date for contractor wage rate adjustments.	Masterworks can track key dates associated with contracts and vendors (contractors). Fields can be added to vendor, contract, and contract item forms to indicate effective dates when a contractor's wage rate will automatically adjust. The dates and the rate adjustment amounts can be used to produce accurate cash flow projections. Aurigo's Business Analyst and Solution Architect will

		work with the City's SMEs to fully understand the requirements and determine the scope and cost of implementing the functionality.
I	105. Manage contractor information, including business licenses, certificates of insurance, evaluation forms, all projects assigned to, etc. all with permission-based access.	Tables can be configured in the Library for managing contractor information, including business licenses, certificates of insurance, evaluation forms, project assignment history, etc. Forms, workflows, and reports will be configured to manage the contractor data. System Administrators and authorized users can create new contractors, including contract IDs, services/materials provided, staffing levels, sub-contractor information, and external stakeholder associations, and attach associated documents such as certifications and bonding information. When setting up a new construction project or contract in the solution, users can select validated contractors from the contractor tables who meet the project or contract requirements.
R	Construction Project Management	
R	106. Construction documentation management, upload/download and storage, including: <ul style="list-style-type: none"> • Version history and control • Construction meeting agendas and notes • Request for Information (RFIs) • Plan and specification revisions • Change orders • Force account with labor, equipment, and material summaries • Material submittals and approvals • Materials testing coordination • Track working days used for contract • Unit item quantity and lump sum percentage tracking • Prepare and maintain as-built drawings • Routing and tracking documentation • Risk and issues analysis • Lessons learned 	<p>Construction documentation storage and management - Version history and control</p> <p>Masterworks has full-featured Document Management capabilities. The City can upload documents and associate them with specific projects, change orders, contracts, etc. Business rules and role permissions determine who can upload files, check them in/out, move them, or delete them. Workflows can be associated with certain activities and file types to manage document review and approval processes. The Document Management features in the solution will allow users to collaborate and coordinate amongst multiple parties.</p> <p>Upload/download and storage:</p> <p>Masterworks Document Management is a repository that stores and tracks documents electronically. It facilitates the organization and storage of content logically and hierarchically in project folders and sub-folders to ensure consistency across the enterprise. The documents will be stored within a directory structure defined by the City. The document management feature supports document classification and metadata features that can be used to group documents. Masterworks provides a robust document search engine that allows users to search for documents using document properties or keywords. Document search is available at the individual project level and the enterprise level.</p> <p>Construction meeting agendas and notes:</p> <p>Masterworks comes with the ability to create and track meeting minutes out of the box. Authorized users can seamlessly schedule and manage meetings using the Minutes of Meeting functionality. It allows the user to create a meeting with details such as the meeting agenda. The user can either add a new meeting agenda or copy an agenda from the previous meeting. In addition, users can use the Mail Merge feature to generate a meeting agenda from the previous meeting minutes.</p> <p>Request for Information</p>

The Request for Information (RFI) form in Masterworks is a formal communication between the contractor and the owner. The RFI process is used primarily by contractors to send questions to an owner and then receive resolutions back from the owner. Additionally, owners can initiate discussions with multiple project stakeholders and use the responses from the participants to develop solutions for problems. An RFI may result in a contract change order or a Request for Proposal. The City can use the RFI/RFP capabilities in Masterworks to accomplish the following tasks:

- Contractors can initiate RFIs with questions that need to be answered along with pertinent details and submit them to the City.
- Authorized users, such as Project Managers, can view the queries in the RFIs and collaborate with other stakeholders to arrive at solutions.
- Authorized users can respond to contractors with clarifications and initiate a Request for Proposal process if required.
- Final business decisions can be obtained from management and other stakeholders.

Change orders

In Masterworks, change orders can be initiated for changes in the price or quantity of contract items. An authorized user can request a change order that includes changes to the contract terms or contract item quantities or prices. Relevant documents can be attached to support the changes. The change order approval workflows can be configured to align with the City's business process. After approval, the contract is updated to include the changes.

Material submittals and approvals

In Masterworks, relevant documents, shop drawings, and material samples are attached to a submittal form and processed for stakeholders' approval. A submittal form comprises information about the contractor submitting the submittal, the title, type, and due date for the expected submission information, and specifications and descriptions. The City can also compile a set of submittals and package it into a single unit that can be used without having to attach these documents individually to a submittal form.

The related records of other forms to a submittal can be associated, and project users can be invited to review a submittal before it is processed for approval. Then, a submittal response can be selected to either approve and close the submittal or to create a new submittal as a revision to the current submittal.

Unit item quantity tracking

Masterworks can add and track items with units, unit prices, and total item costs. The data can be imported through Excel into the application (item, description, unit, quantity, cost, totals, and subtotals).

Prepare and maintain as-built drawings.

		<p>Masterworks' document management features include annotating drawings and managing versions of Record/As-built drawings and spec files.</p> <p>Routing and tracking documentation:</p> <p>In Masterworks, every document is associated with a pre-defined workflow driven by its document type. Document approvals can be routed using workflows according to defined business rules; the system administrator can configure such workflows using the Workflow Builder tool. My Tasks feature on Masterworks will inform users of any pending action items. Using document management workflow, users can route documents and images for approval. Documents can be cross-referenced across multiple process objects. Every document will have a pre-defined workflow driven by its type. Workflows drive the status and approval cycles of documents. The associated approval cycle determines document review, redline, and version controls.</p> <p>Risk and issues analysis:</p> <p>Masterworks has a risk register that allows users to identify and track risks. Risks can be categorized and scored based on likelihood and severity, which determines the risk level and score and would be the quantitative analysis for the risk. The users can also define the action items and the mitigation plan to help the City's project team mitigate and reduce the likelihood of the risk. The impact regarding schedule, cost, etc., can also be quantified against the risk. The project risks can be tracked and monitored using risk reports and dashboards.</p> <p>Lessons Learned:</p> <p>A Lessons Learned table can be configured in the Masterworks Library. It can be used to record issues discovered while executing projects and what the City did to resolve them. Supporting documents can be uploaded and attached to each lesson learned. Authorized users can search the table for examples of how the City responded to past problems.</p>
R	107. Manage task assignments.	<p>Tasks are assigned by workflows, which are a part of business processes. Users are assigned tasks by the schedule feature within each project. Notifications are triggered based on the due dates for the completion of the task. Individuals can review and complete their respective tasks from the My Tasks page in the application.</p>
R	108. Field access to project documents (mobile, desktop, web).	<p>Masterworks comes with a companion mobile application, accessible on any modern mobile device that runs Android, Windows, or iOS. The Masterworks Mobile application improves productivity by enabling users in the field to work from a mobile device efficiently.</p> <p>The Masterworks mobile app is tailor-made for tracking and monitoring the onsite activities of a construction project. The site's field inspectors and construction managers can use the mobile app to record daily progress, issues, risks, etc. Videos and photos from the site can be uploaded into the system through the app. Project documents can be downloaded to a mobile device and accessed in the field for reference purposes.</p>

R	109. Conduct design submittal reviews, including adding comments/redlines and mark up, and compiling into a comment log.	Masterworks has document annotation capabilities that can be used for collaborating with internal and external users and adding redlines to contracts and other project documents. External vendors can be given access to the solution where they can review documents for specified projects. They can provide their annotations and comments on what changes were made or needed. The external vendors can be assigned to user roles that only allow them to access specified content and perform City-designated tasks in the solution. Workflows can be configured to control the review and approval processes. Masterworks also has document submittal capabilities that allow the City and its vendors to exchange documents for projects, design reviews, contracts, RFIs, etc.
R	110. Support Critical Path Method schedules.	Masterworks supports project scheduling using the critical path method. The City can use the scheduling methodology to create and manage schedules for all of its projects. Masterworks supports multiple project schedule views. Critical paths can be viewed using a Gantt chart.
R	111. Change order creation and approval routing, including tracking detailed history by revising percentage complete, quantity, budget, etc.	Change Orders can be initiated for changes in price or quantity of contract items. Relevant documents can be attached to support the changes being made. Change Orders are used to update projects and contracts only after they receive all approvals. The workflows can be configured to align with the City's business process. The revised contracts can then be executed, tracked, and invoiced.
I	112. Contractor/Consultant performance metrics and review.	Masterworks has Vendor Management functions for capturing and evaluating contractor and consultant evaluations, performance metrics, and reviews.
N	113. Minority and Women-owned Business Enterprise and Disadvantaged Business Enterprise reporting.	Fields can be added to vendor management forms for tracking Minority and Women-owned Business Enterprise and Disadvantaged Business Enterprise data. Reports can be configured to extract and display the DBE goal details from the contracts. The DBE goal details can be used in associated business processes and for government reporting.
R	114. Field updates via mobile device, including attaching documents and images.	Aurigo's Mobile application runs on the latest and two most recent previous versions of iOS, Android, and Windows Mobile. Masterworks is also compatible with Windows PCs, tablets, and Windows, iOS, and Android mobile devices using standard browsers. The Masterworks Mobile app allows users in the field to easily submit and respond to processes, view and annotate documents, and, most importantly, work offline when there is no internet connection. In Offline Mode, data entered in the mobile client will automatically sync with Masterworks once the mobile device has internet connectivity.
R	115. Punchlist creation, tracking and management. Ability to share approved punchlists with contractors.	Masterworks supports punch lists. Authorized users can create punch lists with any number of items, assign the items to users or user groups, and set due dates. System Administrators can configure workflows to send notifications and share approved punch lists with contractors. Workflows can also be configured to send alerts when Punch List items are due or overdue. For example, a Project Manager

		can create a final Punch List for a project's closeout. The project cannot be set to "closed" until all the Punch List items are complete.
R	116. Capture punch list with notes and photos (or links) for items on a plan set, as identified by plan sheet.	Punch lists created in Masterworks allow authorized users to enter notes for each punch list item. Users can also upload documents and photos and attach them to punch list items.
I	117. Functionality to note if a punch list item is not started, in progress or complete.	Masterworks includes a punch list utility as a standard feature of construction contract management. The list can be used to define all pending deliverables, which can be tracked to completion. Workflows can also be configured to send alerts when Punch List items are due or overdue. Reports can be generated as needed.
I	118. Capture project progress notes in the field, including date stamp for each entry.	Masterworks and the Mobile app come with Daily Progress Report forms that the City can use to document site inspections. The forms can include fields for project name, project number, date, contractor name, weather conditions, remarks section, call log with name address, phone number, comments, ability to upload or link photos into a report, project manager signature, and date stamp for each entry. The form and its workflow can be configured to align with the City's business processes.
R	119. Static project details can be pre-populated on forms.	Fields on Masterworks forms can be auto-populated based on the City's business rules. Masterworks can auto-populate project detail data such as project name, number, and other fields based on what is defined in the library or what was used on a previous record.
R	120. Update progress notes from a previous day or have a scrolling/continuous form for new information to be added.	Masterworks Construction Project Management product comes with Daily Progress Report forms that inspectors can use to document site inspections. Masterworks can copy data from a previous Daily Progress Report and use it in a new Daily Progress Report.
R	121. Track labor to project and task level of project.	Masterworks offers Resource Management capabilities that allow tracking labor to the task level of a project. Project Managers (PM) can use the Resource Management functions to efficiently manage resources, identify resources for a project, and identify and manage resources concurrently on multiple projects and tasks. Every task has a resource allocation grid, and the PM can decide what roles are required for completing tasks. Once assigned, it will show the total cost for this task based on its resources. The number of available hours per day and the hourly rate for a resource are kept in the Masterworks Library module. Once resource allocation is completed, the PM can get an overview of the allocation across all projects, including over and underutilization.
R	122. Submit, review, and process contractor payments, including: <ul style="list-style-type: none"> • Tracking paid and unpaid work • Different pay schedules and retention amounts • Effective date rate changes • Track by unit • Liquidated damages 	Masterworks supports submitting, reviewing, tracking, processing, and managing contractor payments, including tracking paid and unpaid work. The pay estimate features of Masterworks include allowances for retainage and retainage releases, advance payments and payment recoveries, liquidated damage holds, and hold releases. Retainage can be configured and applied at the contract level. Workflows and related reports can be configured to support tracking and managing retainage.

I	123. Track construction in process vs. in service (items not capitalized).	Masterworks' Construction Project Management solution will provide the City with everything it needs to manage in-process and in-service work tracking. The solution will provide project visibility, comprehensive reporting, real-time dashboards, stakeholder collaboration, automated change management, progress tracking, payment processing, and streamlined scheduling processes. Default project status tracking will be part of the solution, along with a scheduling feature to organize project tasks into manageable sub-components while tracking progress.
I	124. Project completion - transfer project information to an Enterprise Asset Management solution (Lucity), including record drawings, operation and maintenance manuals, warranty information, spare parts, maintenance logs, etc.	<p>Masterworks provides the ability to realize value throughout the lifecycle of a project. To manage this for each project accurately, we recommend the City utilize a combination of processes (i.e., out-of-the-box forms with some advanced configuration) and additional configured reports. The process forms will capture the data throughout the project lifecycle based on the City value goals that need to be measured.</p> <p>As previously mentioned, Masterworks has a flexible Open API for integrating nearly all third-party software and middleware, creating a truly enterprise-level data store for seamless project tracking and reporting. Masterworks supports real-time, two-way data and workflow integration, meaning that Masterworks and integrated systems have accurate, up-to-the-minute data.</p> <p>Aurigo will conduct integration workshops with the core team to identify and elaborate on the integration touchpoints with each application. Doing so helps the Business Core Team understand the overall data flow between the systems and design an optimal solution. Aurigo's Solution Architects will elaborate on all the touchpoints identified with the technical team of each interfaced application to identify data attributes flowing between the system (data mapping), drawings, manuals, documents, warranty information, and logs.</p> <p>A technical interface document will provide all the details required for the interface configuration for Aurigo and the City's development team to build these interfaces. Interfaces are developed and tested in configuration sprints, SIT (System Integration Testing), and UAT (User Acceptance Testing) before sign-off and moving into Production. This will require further discussion to validate the requirements to define the scope, exceptions, and investment.</p>
R	Document Management	
R	125. Full document management capability.	Masterworks includes a Document Management product. The City can upload documents and associate them with specific projects, change orders, and contracts. Business rules and role permissions determine who can upload files, check them in or out, and move or delete them. Workflows can be associated with certain activities and file types to manage document review and approval processes. Masterworks Document Management capabilities allow users to collaborate and coordinate amongst multiple parties.

R	126. Ability to migrate current and past project information from SharePoint and Excel to new PPM system.	Aurigo will work with the City to determine a data migration strategy for migrating current and past project information from legacy systems to the new solution. This may include developing custom, one-time migration solutions. Historical data can also be imported to Masterworks using ready-to-use APIs or Excel import capabilities.
R	127. Version management of documents, images, and reports including ability to mark them complete/final with locking.	The document management capabilities in Masterworks provides version control for all project documents. Any upload or change to a project document is versioned with a date and time stamp. Authorized users will be able to retrieve any version of a document. The solution will lock documents that are checked out, preventing other users from editing.
I	128. Mark a document or form as complete or approved.	A field or check box can be added to documents or forms indicating completion. After reviewing the submitted document or form, an authorized user can click the check box or enter information in the field. Also, as part of a business process workflow, a form can be marked as complete to kick off the subsequent workflow activity.
I	129. Manage and enforce document naming conventions.	All features, forms, documents, and fields within Masterworks are localization-enabled, which means they can be named or renamed to suit the City's naming conventions.
R	130. Photo/image management, including: <ul style="list-style-type: none"> • Directly import images to a project record easily • Ability to tag images to a sheet, plan set, geographical information system location, or project name 	Masterworks can attach or link files, images, photos, videos, and drawings to project items and records. The solution also allows users to tag images to a sheet, plan set, and geographical information system location.
R	131. Support a form library, (typically for inputs) e.g., for business cases, cost estimates, ratings, schedules, consultant and contractor ratings, project development checklists, etc.	Masterworks has built-in forms for many business processes. It also has a Form Builder tool that can be used to create custom forms for business cases, cost estimates, ratings, schedules, consultant and contractor ratings, and project development checklists.
R	132. Support a template library (typically for sending out documents) e.g., for business cases, cost estimates, ratings, schedules, consultant and contractor ratings, project development checklists, etc.	Masterworks can use templates for business processes, workflows, library items, and documents. The templates can be unique for each project and contract type. The template library can contain templates for business cases, cost estimates, ratings, schedules, consultant and contractor ratings, and project development checklists.
I	133. Configurable record archiving and retention.	All data captured within the solution can be deleted or archived based on the City's data retention policies. The policies will be defined during the business analysis phase of the implementation and configured during the configuration phase. The City's data and documents can be maintained in the solution for as long as the system is active and there is an active contract. Authorized users can delete the data within the application if required. Data backup retention policies vary per the Support Plan chosen by the City. Additional data retention capabilities may be possible at an additional cost.
R	Reporting	
I	134. Dashboard functionality can be changed by end users (self-service).	Masterworks provides real-time reporting and dashboard capabilities so the City can visually communicate project updates to its

		stakeholders. The City can use the reports and dashboards that come with Masterworks as-is or use the Report Designer tool to reconfigure existing reports and dashboards or configure new ones (self-service).
R	135. Portfolio Dashboard by user type - Project Manager, Department Head, City Council, Field, Project Manager, Contractor, etc.	Masterworks has standard Portfolio Dashboards that can display data by user type, such as Project Manager, Department Head, City Council, Field, Project Manager, and Contractor.
R	136. Project Dashboard – timeline, budget to actual, percent complete, project shortfall, project on track, behind, etc.	Masterworks can track and report budgets at the project, program, and portfolio summary and detail levels by timeline, planned budget vs. actual, percent complete, project shortfall, project on track, project delay, planned cash flow vs. actuals, and cost breakdown structure.
R	137. Ability to drill down into details of project status, including earned value, spend rate, cash flow, etc.	Masterworks' on-screen reports and dashboards allow authorized users to drill down to the details such as earned value, spend rate, cash flow, etc.
I	138. Project performance metrics.	Project performance metric reports can be configured at the project, program, and portfolio levels. Fields can be added to project forms for performance metric tracking.
I	139. Self-service user query (ad-hoc) reporting tools based on multiple parameters/filters.	Masterworks has reporting capabilities that allow users to create ad-hoc custom reports for any data set available in the solution based on multiple parameters or filters. The reports can be saved as templates and made available to other users. The ability to access specific data is dependent on the roles and permissions assigned to the user.
I	140. User level security flows through to queries, reports and data.	Users can be given role permissions to create, modify, and delete ad-hoc reports and dashboards. Unless a user is permitted to access specific data in the system, they cannot create reports or dashboards that can retrieve the data. System Administrators will have full access to the data and functions in the solution and can edit the queries in the City's standard reports and dashboards.
I	141. Pre-built and user-generated reports and queries that can be modified, saved, and shared based on permissions.	Masterworks comes with dozens of industry-standard reports built using Microsoft SQL Reporting Services. The City can create custom reports using the Report Builder tool in Masterworks. The Report Builder allows users to save reports for future use, schedule them to run at predefined times, and send them to user inboxes or via email. Role permissions can be configured on custom reports to allow or restrict user permissions.
R	142. Ability to date and time stamp reports.	Reports generated by Masterworks can be configured to display the date and time stamp of the report's production.
I	143. Functionality to support “mining” previously completed projects including cost data.	The City can analyze the data stored in the solution using Masterworks' reporting capabilities. The Report Designer tool can configure reports that display information based on data points such as project delays and cash flows. The historical data can be used to display trend analysis and determine projected future performance based on past project performance. The Aurigo Team will work with the City's SMEs to understand the reporting requirements and determine if existing reports can be used as-is or need reconfiguring to meet the City's trend analysis reporting needs.

I	144. Support for year-end reporting.	Masterworks has several project, program, and portfolio-level reports that support year-end reporting. Program and fund forecast reports are included, including reports that show data spread across the entire program cycle (for example, four and five years). Additional program reports can be configured per the City's requirements.
N	145. Trend analysis.	Masterworks comes with standard reports showing financial trend analysis for funding levels, revenues, budget appropriations, expenditures, and cash flows. The Report Designer tool can be used to configure additional trend analysis reports that meet the City's business requirements. The reports can be generated on a regular basis and then distributed to stakeholders. Aurigo's Business Analyst and Configuration Specialist will work with the City's SMEs to fully understand the requirements and determine the scope and cost of implementing additional reports.
I	146. Automated report generation and distribution.	Masterworks' reporting engine can generate and distribute automated reports to authorized users who subscribe to the reports. System Administrators and authorized users can configure reports that automatically run on a defined schedule (Hourly, Daily, Weekly, Monthly, etc.). Authorized users like System Administrators can set up report subscriptions for themselves or others. The reporting engine will automatically generate per the defined schedule and email the reports to recipients as attachments. The received reports can be viewed and printed using the printing capabilities in the browser, which can set the default printer, orientation, etc.