

NOTICE

Please note that this bid from Aurigo Software Technology, Inc. for CRFP_DOT2200000002 was received at the Purchasing Division office prior to the established bid opening date and time on September 30, 2021, and was read at the public opening, however, the time stamp was accidentally destroyed when opening the sealed bid package.

A handwritten signature in black ink, appearing to read "Guy Nisbet", written over a solid horizontal line.

Guy Nisbet

Assistant Purchasing Director



**Aurigo Response to
The West Virginia Department of Transportation
CRFP 0803 DOT2200000002
Right of Way Management System
Due Date: September 30, 2021, 1:30 PM EDT**



Attention:

Tara Lyle
Buyer Supervisor
Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305
Phone: (304) 558-2544
Email: Tara.L.Lyle@wv.gov

Aurigo Contact:

Matt Osborne
Director of Sales
Aurigo Software Technologies Inc.
12515 Research Blvd.
Building 7, Suite 300
Austin, TX 78759
Direct: 617.417.8664
Email: matt.osborne@aurigo.com

aurigo[®]

Authorized signatory for Aurigo Software Technologies, Inc.

Balaji Sreenivasan

Balaji Sreenivasan, Chief Executive Officer

Date: 9/29/2021



Transmittal Letter

Tara Lyle
Buyer Supervisor
West Virginia Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305

September 29, 2021

Dear Ms. Lyle,

On behalf of Aurigo Software Technologies, Inc. (“Aurigo”), I am delighted to submit our response to the West Virginia Department of Administration, Purchasing Division’s Request for Proposal (“RFP”) for a Right-of-Way Management, Utility Relocation, and Railroad Agreements Management System. Should you have any questions about Aurigo’s response or our exemplary record supporting Departments of Transportation, I, Balaji Sreenivasan, am the point of contact for this response. I will also be the contact person authorized to make representations for and legally bind Aurigo. My contact details are as below:

- Contact Name: Balaji Sreenivasan
- Title: Chief Executive Officer
- Company Name: Aurigo Software Technologies, Inc.
- Company Address: 12515-7 Research Blvd., Suite 300, Austin, TX 78759
- Telephone Number: (512) 212-4999
- Email Address: proposals@aurigo.com

West Virginia DOT (the “Agency”) is looking for a modern cloud Software-as-a-Service (SaaS) solution to replace the current antiquated tools used to manage Right-of-Way, Utility Relocation, and Railroad Agreements. The Agency requires a new solution that reduces response times for data requests, standardizes the entire document management process, increases accuracy, and improves transparency with better data visibility and team collaboration. The new solution will be a key element in the overall vision for the Agency’s Transportation Management System. The ability for the system to interoperate with other mission-critical systems, like wvOASIS, is also mission-critical to the goal of improved operational excellence.

Aurigo is a software company headquartered in Austin, Texas, whose mission is to help public agencies and government infrastructure owners leverage innovative technology to improve their ability to plan, build, and operate their capital assets. With over 400 employees, Aurigo is a debt-free, profitable, and robust software company. Aurigo delivers world-class software to Government agencies to improve project outcomes and serve our communities better. Our customers include State DOTs, cities, counties, water authorities, utility departments, and other transportation agencies across North America.

Aurigo is proposing its flagship product, Aurigo Masterworks Cloud (“Masterworks”), for the Agency’s Right-of-Way Management, Utility Relocation, and Railroad Agreements Management System. Aurigo is the sole developer of Masterworks Cloud and owns the software’s IP. Aurigo is not proposing to use software from any third parties. Masterworks is highly configurable enterprise software built using the best practices from other State DOTs. Because Masterworks is a fully developed system, the risks

associated with developing custom-built software or using software pieced together from multiple vendors are eliminated. The Agency can move quickly into configuring the solution to the exact specifications and requirements listed in the RFP, resulting in a faster time-to-implement value for the Agency.

The entire proposal submitted by Aurigo and the investment summary contained herein is binding upon Aurigo in all respects for 180 days from receipt of the BAFO (Best and Final Offer) by the Agency or the date of proposal submission if no BAFO is requested. Aurigo will be the sole contractor for this project. Aurigo is not subcontracting or proposing third-party software provider(s) for the Agency's Right of Way Management System project. Aurigo has no direct or indirect interests which will conflict with the performance of services under the Contract and will not employ any person having a conflict in the performance of the Contract.

Based on our eighteen years of experience implementing RoW software for DOTs, we feel Aurigo is the best-fit technology provider for this initiative, and we look forward to showcasing our solution to your team.

Regards,

A handwritten signature in blue ink that reads "Balaji Sreenivasan".

Balaji Sreenivasan
Chief Executive Officer
Aurigo Software Technologies, Inc.
proposals@aurigo.com
www.aurigo.com
(512) 212-4999



Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Centralized Request for Proposals
 Info Technology

Proc Folder: 912272			Reason for Modification: Addendum No. 2
Doc Description: Addendum No. 2 - ROW Management System - 62210C002			
Proc Type: Central Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2021-09-21	2021-09-30 13:30	CRFP 0803 DOT2200000002	3

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Customer Code : VS0000038662

Vendor Name : Aurigo Software Technologies, Inc.

Address :

Street : 12515-7 Research Blvd., Suite 300

City : Austin

State : Texas

Country : United States **Zip :** 78759

Principal Contact : Matthew Osborne, Director of Sales


Vendor Contact Phone : 617.417.8664 **Extension:**

FOR INFORMATION CONTACT THE BUYER
 Tara Lyle
 (304) 558-2544
 tara.l.lyle@wv.gov


Vendor Signature X **FEIN# 56-2336347** **DATE : September 29, 2021**

All offers subject to all terms and conditions contained in this solicitation

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.



(Name, Title) **Balaji Sreenivasan, Chief Executive Officer**

(Printed Name and Title)
12515-7 Research Blvd., Suite 300, Austin, TX 78759

(Address)
512-212-4999

(Phone Number) / (Fax Number)
proposals@aurigo.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

Aurigo Software Technologies, Inc.

(Company)


(Authorized Signature) (Representative Name, Title)

Balaji Sreenivasan, Chief Executive Officer

(Printed Name and Title of Authorized Representative)

September 29, 2021

(Date)

512-212-4999

(Phone Number) (Fax Number)

REQUEST FOR PROPOSAL
CRFP DOT22*02
WV DOT ROW SYSTEM RFP

Step 1: Lowest Cost of All Proposals / Cost of Proposal Being Evaluated = Cost Score Percentage

Step 2: Cost Score Percentage X Points Allocated to Cost Proposal = **Total Cost Score**

Example:

Proposal 1 Cost is \$1,000,000
Proposal 2 Cost is \$1,100,000
Points Allocated to Cost Proposal is 30

Proposal 1: Step 1 – $\$1,000,000 / \$1,000,000 =$ Cost Score Percentage of 1 (100%)
Step 2 – $1 \times 30 =$ Total Cost Score of 30

Proposal 2: Step 1 – $\$1,000,000 / \$1,100,000 =$ Cost Score Percentage of 0.909091 (90.9091%)
Step 2 – $0.909091 \times 30 =$ Total Cost Score of 27.27273

6.8. Availability of Information: Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Aurigo Software Technologies, Inc.
(Company)

Balaji Sreenivasan, Chief Executive Officer
(Representative Name, Title)



512-212-4999
(Contact Phone/Fax Number)

September 29, 2021
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFP DOT2200000002

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.


Balaji Sreenivasan, CEO

Aurigo Software Technologies, Inc.

Company

Authorized Signature

September 29, 2021

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Balaji Sreenivasan, Chief Executive Officer, Aurigo Software Technologies, Inc.

Authorized Signature: *Balaji Sreenivasan* Date: September 20, 2021

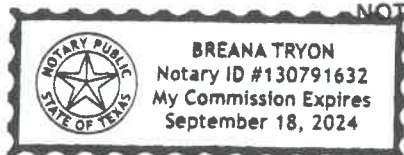
State of Texas

County of Travis, to-wit:

Taken, subscribed, and sworn to before me this 20th day of September, 2021.

My Commission expires September 18, 2024.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]

Purchasing Affidavit (Revised 01/19/2018)

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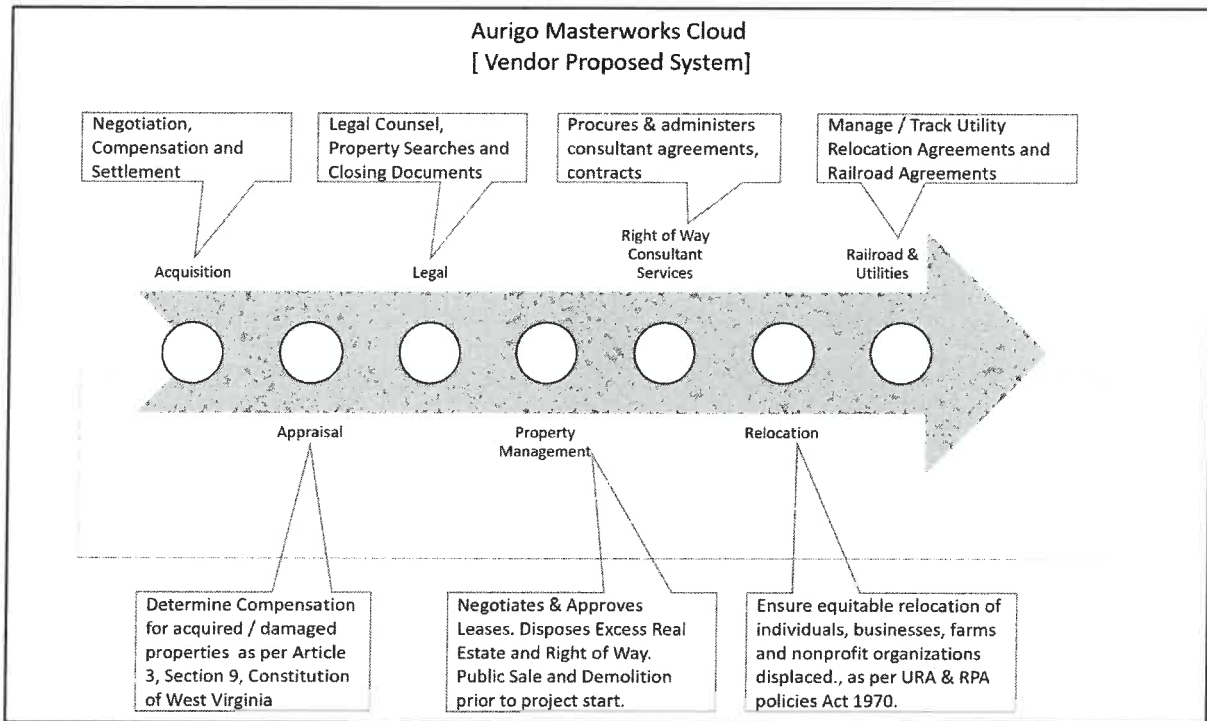
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Tab 1 Executive Summary

Aurigo’s mission is to build and deliver modern cloud-based software to help public agencies streamline every aspect of their capital program - planning, engineering, construction management, right-of-way acquisition, and maintenance operations. To accomplish this mission, Aurigo developed Masterworks Cloud (“Masterworks”), a modern Software-as-a-Service (Commercial off the Shelf) platform, to help agencies plan with confidence, build with quality, and operate with efficiency. Aurigo’s mission and offering align 100% with WYDOT’s mission and goals to plan, build and maintain over 35,000 miles of state roads.

Aurigo appreciates the detailed RFP (CRFP DOT22*02) provided by WVDOT (the “Agency”) and fully understands a *Vendor Proposed System* (“VPS”) needs to manage and track the entire lifecycle of the Agency’s right-of-way acquisition process as well as support its property management business processes. Aurigo also understands the Agency’s need to manage and track its utility relocation and railroad agreements. Aurigo can deliver all of this functionality using its proven Aurigo Masterworks Cloud platform that is DOT tested. The schematic below represents Aurigo’s understanding of the different processes sought to be automated by the Agency that Masterworks Cloud will deliver.



Vendor Proposed System by Aurigo:

Overview: The Aurigo Masterworks solution is an industry-proven software helping agencies plan and execute over \$300B of capital programs. Masterworks Cloud is a modern Software as a Service Platform built from the ground up for public agencies planning and delivering billions of dollars of construction and right of way processes. Aurigo's solution will help the Agency standardize and improve workflows, integrate with the Agency's systems of record, and merge and combine data in an automated enterprise-level solution. With Masterworks, the Agency's processes will be automatic, auditable, and completely transparent. There will never be a question about who owns the following action or the next action within a given process with ball-in-court functionality. More importantly, Masterworks is not a customized solution that is outdated and difficult to support. It is a modern cloud Software-as-a-Service built on a web 2.0 architecture, accessed and supported on all popular web browsers. Masterworks is built on Microsoft Technologies, and Aurigo will also ensure that the product is up to date with periodic upgrades, updates, and security fixes. The User Interface is intuitive and easy to use, which is crucial for user adoption.

Products and Services Offered: As part of this response, Aurigo is explicitly proposing the Aurigo Masterworks Cloud Platform, Full Lifecycle Construction Management, Right-of-Way and Land Management, and Asset Maintenance Software products to meet the needs of the Agency along with implementation services provided by Aurigo. Please see TAB2, Section 2.2, in this proposal to learn more about the Aurigo Masterworks Cloud Suite software products. Aurigo's proposed software and services will help the Agency:

1. Manage and track the entire Agency right-of-way acquisition process lifecycle from project set-up, parcel identification, conducting appraisals, negotiations, communication, condemnation, and relocation.
2. Streamline the entire process of consultant contract agreements and help manage the consultant invoices raised toward the right of way process.
3. Track the entire utility relocation process, including all documentation needed, creating relocation agreements, tracking completion of the relocation work, and payment of invoices toward reimbursements approved by the Agency
4. achieve operational excellence with managing its railroad agreements, including project set-up, identification and documentation of the railroad right-of-way impacted by the project, creation of railroad agreements, and tracking all invoices and costs to be reimbursed by the Agency.
5. Implement and configure the system as per the Agency's specific needs, with adequate training. Aurigo will integrate Aurigo's VPS with other Agency systems (including wvOASIS ERP, HUB, CGI HRM, and Deighton dTIMS solutions wherever applicable) to deliver a fully integrated digital roadmap for the Agency.
6. Unparalleled customer support: The Aurigo Customer Success desk can be contacted during support hours via telephone or 24x7x365 via email or Web portal and is committed to responding within 24 hours. Aurigo will track all cases on its online ticketing system, and Agency users provide up-to-the-minute issue resolution status.

As part of the services Aurigo will provide to the Agency, it will also provide the following supporting information:

1. **Architectural designs** - Based on the capacity and storage requirements listed in this RFP, along with a cloud operations and implementation plan that will deliver a turnkey solution fully supported by Aurigo for the long term via a multi-year engagement.
2. **Hardware and Software Requirements** - The entire proposed solution will be delivered over the cloud, hosted, and managed by Aurigo (via its partnership with Amazon Web Services). Aurigo anticipates users at the Agency to access the solution over the cloud using a browser on their computers, laptops, and tablets. Aurigo has specified the hardware and software components required to access the masterworks software in TAB 4, Section 4.2, of this proposal.
3. **Data Migration Plan** - Aurigo fully understands the need to migrate existing data and services. Aurigo will include its recommended approach and the best practices that Aurigo's team will follow to execute a seamless transition to the new system. Please see TAB 8 in this proposal to learn more about how Aurigo will deliver a Right-of-Way Management System to the Agency.
4. **Business Continuity and Security Compliance** - Aurigo Masterworks Cloud meets the highest security standards of SOC 2 Type 2 (SSAE 18) Certification, NIST 800-53 (Rev. 4) Moderate Baseline Compliance, FedRAMP Ready, StateRAMP Ready, and ISO 22301:2019 Certification. Please refer to Aurigo's responses to the Application Architecture in the Requirements Matrix for more information.
5. **Google Workspace Compliance** - Aurigo's solution is compatible with Google Workspace Products as well as the State's acceptable use policy.

The VPS solution by Aurigo will provide the Agency team with the latest project management tools, land acquisition management, contract management, fund management, utility relocations, and railroad agreements management capabilities.

Proven Department of Transportation Experience

Aurigo is a proven commodity for implementing Masterworks at Departments of Transportation (DOTs) and similar sized agencies. Aurigo has implemented Masterworks successfully across numerous DOT's to meet their goals and requirements. At a high level, the goals of Aurigo's DOT clients are like those detailed by the Agency. A few of the critical problems these clients were looking to solve were:

- A solution to drive efficiency and collaboration throughout the DOT by automating workflows and storing electronic information.
- A vendor who can provide the solution and services to implement it without requiring a third party.
- A solution that can easily integrate with other state and federal systems and is built on a modern infrastructure
- A vendor who understands the industry and the problems DOTs' are trying to solve.
- A system that provided advanced reporting and analytics to provide users with decision support data at their fingertips.
- A system that would provide process improvements to gain efficiency savings.

Aurigo has provided information on its successful ROW implementations in **TAB 5 - References** of this response. The exhibit below provides a snapshot of some of Aurigo's public sector clients:



Each Aurigo client has specific challenges they are addressing with the implementation of Masterworks. These are driven based upon their current systems, planned future systems, and business and compliance requirements, to name a few. Here are some of the results achieved by Aurigo's clients that the Agency should expect to see:

- Clearly defined project boundaries with geo-tagging and land mapping using ESRI ArcGIS
- Streamlined environmental clearance with automated notifications and the ability to integrate with environmental compliance systems
- Ability to track approvals with a clear audit trail of every revision and final approval
- Eliminated paper forms with mobile apps for surveys and land appraisals, including tracking details of any features on the land
- Avoidance of complicated paper trails with configurable templates to create legal documents and maintain approvals digitally
- Ability to easily manage the parcel detail (e.g., appraisal value, dates, status, comments) for each parcel of land needed for each project
- Ability to automate and manage the complex process to acquire land through deeds, easements, eminent domain, and multiple offers and counteroffers while keeping track of every detail for full legal compliance
- Ability to manage payments to owners and automate the financial tracking with integration with financial and payment systems
- Management of relocation services using configurable templates, digital approvals, and signatures

Company Information

Aurigo is a privately held technology company incorporated in the State of Delaware. Aurigo’s mission is to help public sector agencies and facility owners plan, deliver, and maintain their capital projects securely and efficiently. The staff who work directly with Aurigo’s customers operate out of Aurigo’s Austin office.

COMPANY INFORMATION	
Name, address, telephone number, fax number, and email address	Aurigo Software Technologies, Inc. 12515-7 Research Blvd., Suite 300 Austin, TX 78759 Phone: (512) 212-4999 Fax: (631) 750 8800 Email: proposals@aurigo.com
Form of business entity	Corporation
State of incorporation	Delaware
Number of years in business	18 years
Number of employees	400+
Type of business	IT Software and Hosting Services
Name, address, email address, and telephone number of the Aurigo representative to contact regarding sales, pricing, scheduling product demonstrations, and contract signatures	Balaji Sreenivasan Chief Executive Officer 12515-7 Research Blvd., Suite 300 Austin, TX 78759 Main: (512) 212-4999 Email: proposals@aurigo.com

Exceptions to Terms and Conditions

There are specific terms in the General Terms and Conditions that Aurigo would like to take exception to. Please see attached the marked-up copy of the General Terms and Conditions.

- Section 7 “Required Documents”: Aurigo requires more discussion with the Agency concerning the performance bond requirement. Aurigo understands that the mandate in West Virginia § Code 5-22-1 (d) is applicable only for construction projects. As this contract will be for software and implementation services, Aurigo believes this mandate is not applicable. Also, liquidated damages included in Section 11 will motivate Aurigo to deliver the RoW Management solution per plan. Aurigo would like to change the Performance Bond terms to read as follows:

“The Agency and the apparent successful Vendor shall determine during Contract negotiations if the Vendor must provide a performance bond. The performance bond, if required, must be received by the Purchasing Division before the Contract award.

- Section 19 “Cancellation”: Aurigo requests thirty (30) days to cure a claimed default. Giving Aurigo the right to cure a default will benefit both parties. Aurigo can protect its reputation and the expected revenues from the contract. The Agency can motivate Aurigo to fix any problems and hopefully avoid starting over with a new vendor. Aurigo would like to change the Cancellation terms to read as follows:

“The Purchasing Division Director reserves the right to cancel this Contract upon giving thirty (30) days written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The vendor shall have thirty (30) calendar days from receipt of notice to cure the default. If the vendor fails to cure the default within the timeframe allowed, the Purchasing Division Director may, at their option and in addition to any other remedies they may have available, cancel and terminate the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.”

- Section 36 “Indemnification”: Aurigo would like to narrow the indemnification it might give to persons or entities for claims or losses directly attributable to Aurigo for death, bodily injury, or damage to tangible property. Aurigo also wants to clarify that it will not indemnify the State, the Agency, its officers, or its employees for their gross negligence. Aurigo would like to change the Indemnification terms to read as follows:

“The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses by any person or entity for death, bodily injury or damage to tangible property directly attributable to the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws. THIS PARAGRAPH IS NOT INTENDED TO AND WILL NOT BE CONSTRUED TO REQUIRE THE VENDOR TO INDEMNIFY OR HOLD HARMLESS THE STATE, THE AGENCY, THEIR OFFICERS, AND EMPLOYEES FOR ANY CLAIMS OR LIABILITIES RESULTING FROM THE GROSS NEGLIGENCE OF THE STATE, THE AGENCY, THEIR OFFICERS, AND EMPLOYEES. THE PROVISIONS OF THIS SECTION WILL SURVIVE TERMINATION OF THIS CONTRACT.”

In Conclusion

Ladies and Gentlemen, Aurigo believes it understands the Agency's challenges and presents this proposal to address the Agency's goals and needs. Aurigo is excited at the opportunity to present a compelling value proposition that will meet and exceed the Agency's expectations for this program.

Aurigo is confident it is the best value partner for the Agency's goals and requirements for this technology initiative and looks forward to demonstrating its solution and addressing all clarifications the Agency's team may have.



Tab 2 Aurigo Company Profile

2.1 Overview of the Firm

Aurigo Software Technologies, Inc. was established in 2003 to build a world-class software company focused on providing capital project planning and portfolio management solutions. Capital program owners use Aurigo’s software to control their capital projects, reduce project costs, and eliminate delays. Over the past 18 years, we have built additional products that help public agencies manage construction and maintenance projects. We now provide a full suite of products that cities, counties, states, and public agencies across North America use to plan, build, and maintain their capital programs, infrastructure, and facilities.

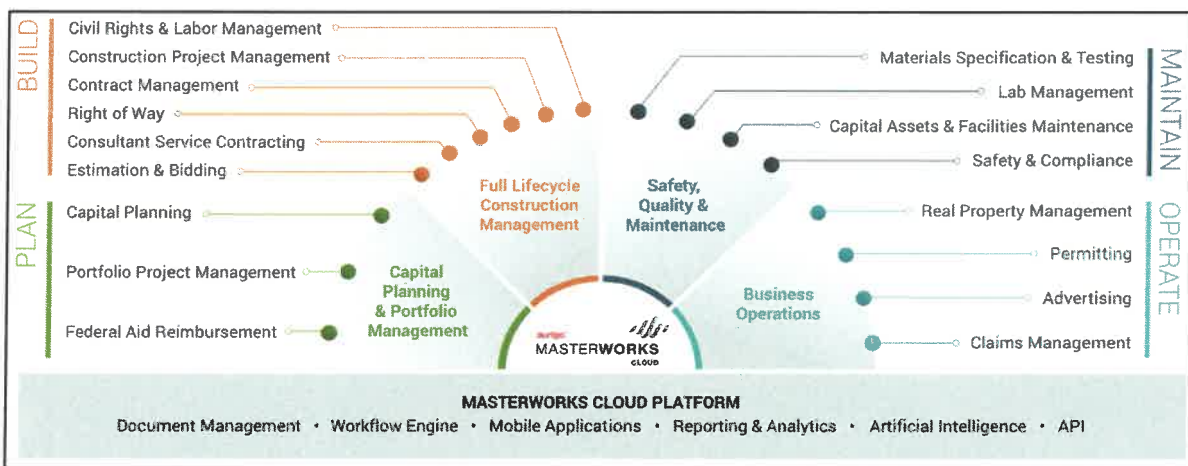
Balaji Sreenivasan is the founder, Chief Executive Officer, and board member at Aurigo Software Technologies. Balaji has played a critical role in shaping Aurigo to be a modern enterprise cloud software business that is helping infrastructure owners plan and build over \$300 Billion of capital projects more efficiently. Over the last decade, Aurigo has grown from a bootstrapped start-up to the leading provider of capital programs, construction, safety, and maintenance software, with 300+ customers across North America. In that time, Microsoft has recognized us as one of the most innovative companies and been awarded a Global 100 Company by Red Herring.

About Aurigo Software Technologies	
Primary business	Capital programs, construction, and maintenance software for public sector agencies
Years of operation	18 years
Ownership	Privately held Delaware corporation
Customer Base	Cities, counties, state and federal agencies, water authorities, rail and transit authorities, airports, and ports
Major Office Locations	United States (Austin), Canada (Mississauga), and India (Bengaluru).
Office location responsible for the performance of proposed tasks	United States (Austin)
Off-site activity location	Portions of the configuration activity will be performed by configuration specialists in Aurigo’s Bengaluru, India office.
Years of providing ROW management software	16 years

2.2 Aurigo’s Expertise

Aurigo’s flagship product, Aurigo Masterworks Cloud (“Masterworks”), is a SaaS offering that helps government agency owners automate their entire program management, portfolio planning, fund management, and contract management lifecycles. Aurigo will help the Agency establish standardized processes that will reinforce best practices for the Agency, including standardizing and improving workflows, integrating with systems of record as needed, and merging and combining data in an automated enterprise-level solution. Processes will be automatic, auditable, and completely transparent. With ball-in-court functionality, there will never be a question about who owns the next action or what the next action is within a given process. The system has powerful reporting and dashboard capabilities. Aurigo is also investing extensively in harnessing Artificial Intelligence and Blockchain technologies. Aurigo helps over 300 customers plan and deliver over \$300 billion of capital programs safely and efficiently. Masterworks allows contract and project managers to automate the entire capital project lifecycle - from initiation to final closeout. Masterworks is also one of the most integration-friendly systems in the market. Masterworks has a significant number of web service-based APIs that can integrate with the Agency’s other systems.

The Aurigo Masterworks Cloud suite includes four product lines. Each has a complete set of products that empower cities, counties, states, agencies, and businesses with everything they need to plan, build, maintain, and operate their capital projects and assets.



Masterworks Cloud Platform Product Suite

Masterworks is suitable for managing all kinds of infrastructure projects irrespective of their size, scope, cost, or duration. Masterworks has a modern design standard that is user-centric and intuitive, which works on a web browser and mobile devices.

The Agency will enjoy the benefits that other agencies who have implemented Aurigo’s ROW solutions enjoy, namely:

- Efficient use of capital due to proper budgeting and planning

- Decreased time in measuring and processing data
- Increased reporting and dashboarding capabilities
- Reduced errors and rework due to system automation and validation of data entry
- Workflow management and business process automation
- Increased productivity performing tasks in the field and the office
- Reduced operations and maintenance costs
- Increased efficiency in overall project management
- Increased data transparency and access to current and historical data

Aurigo's ROW solution is more than a reporting system; it's a system where the Agency users will utilize best practices and take advantage of a cutting-edge, innovative technology platform to help the Agency manage projects. The Agency will move from being data-aware to data-driven. Efficiencies will increase because data is more accurate and accessible. And the data collected throughout the project management process will allow stakeholders to run queries and reports that can be used to expedite business functions.

2.3 Aurigo's Financial Capability and Corporate Structure

Aurigo Software Technologies is a private company registered in the State of Delaware. Aurigo is owned and managed by technology entrepreneurs and private equity companies with vast investment resources and rich experience in starting successful software companies and managing large US corporations' software groups. The company's stock is owned 100% by the management and founders of the company. Aurigo has the necessary financial capacity, working capital, and other resources to perform this Contract without assistance from any outside sources. Aurigo has adequate resources to continue as an ongoing concern. If the Agency wants additional details on Aurigo's financial health, more information can be provided upon executing a Non-Disclosure Agreement.

Aurigo ensures the highest level of corporate governance by relying on guidelines set by an experienced Board of Directors (elected by shareholders) and an Advisory Board (nominated by the Board of Directors). The Board of Directors at Aurigo, with input from the Aurigo Advisory board, specifies the rules and procedures for making decisions in corporate affairs. The Aurigo corporate governance guidelines provide a structure through which Aurigo sets and pursues its corporate objectives while reflecting the context of the social, regulatory, and market environment.

Over the last 15 years, Aurigo has invested over \$75M in R&D to build best-of-breed software solutions that improve and automate the capital planning, construction management, and maintenance processes of state and local government agencies. Aurigo has an exclusive partnership with Autodesk, the world's leading design and construction technology company. This partnership has created a connector between Autodesk's and Aurigo's systems to bring best-in-class capital planning, design, and construction products together for public agencies, private owners, and contractors.

2.4 Aurigo's Disclosures

- Aurigo has no direct or indirect interests which will conflict with the performance of services under the Contract. Aurigo will not employ any person having a conflict to perform services under the Contract.
- In the last ten (10) years, neither Aurigo nor any of its officers in their individual or professional capacity, or when associated with another company, filed (or had filed against them) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors.
- There are no pending Securities Exchange Commission investigations involving Aurigo.
- There is no open or pending litigation initiated by Aurigo or where Aurigo is a defendant in a customer matter.
- There were no public sector Right-of-Way, Utility Relocation, and Railroad Agreement management system-related contracts awarded to Aurigo that were terminated for cause or convenience in the past five (5) years.
- Aurigo has no criminal or civil offense proceedings filed against it.

Tab 3 Subcontractor Company Profiles

Aurigo Software Technologies, Inc. will be the software vendor and services provider for this contract. Aurigo will not use any subcontractors, third-party software providers, or third-party services providers.

Tab 4 Licensed Product Information

4.1 Business Applications

In this section, the Vendor shall provide a detailed product summary chart that lists:

- Each Software Provider (please list the primary Right-of-Way, Utility Relocation and Railroad Agreement Software Provider first);
- The different product sets to be provided by each Software Provider;
- The modules/functions within those product sets;
- The release level of the products to be used;
- The next release/version level to be released; and
- The planned release date of the next release/version.

Right of Way Management System Product Summary Chart					
Aurigo Masterworks Cloud Suite					
Primary Software Provider	Software Products to be Provided	Functions of Software Products	Current Release Level	Next Version to be Released	Planned Release Date
Aurigo Software Technologies, Inc.	Aurigo Masterworks Cloud Platform	All products in the Aurigo Masterworks Cloud suite are built on the Masterworks Cloud Platform. The Masterworks Cloud Platform runs on AWS with the highest level of security, including SSAE-16 Type II. The following Masterworks Cloud Platform capabilities can be used across any of the products in the Aurigo Masterworks Cloud Suite:	13.3.0	22.0.0	December 2021

Right of Way Management System Product Summary Chart					
Aurigo Masterworks Cloud Suite					
Primary Software Provider	Software Products to be Provided	Functions of Software Products	Current Release Level	Next Version to be Released	Planned Release Date
		<ul style="list-style-type: none"> • Document Management - The Aurigo Masterworks Platform has robust document management functionality that supports tracking, revisions, and storage for all important documents and workflows. • Advanced Workflow & Notification Engine - the workflow and notification engine enables control and automation of any process, form, or document, including pay requests, milestones, change orders, and more. • Reports, Analytics & AI - real-time reporting for all capital programs, construction, and maintenance projects. With 300+ out-of-the-box, industry-standard reports and the ability to modify and create new reports, the reporting engine provides crystal-clear visibility for staying informed and in control. 			

Right of Way Management System Product Summary Chart					
Aurigo Masterworks Cloud Suite					
Primary Software Provider	Software Products to be Provided	Functions of Software Products	Current Release Level	Next Version to be Released	Planned Release Date
		<ul style="list-style-type: none"> Native Mobile Apps - Many of the products and forms most commonly used by people in the field can be run on mobile devices using the Masterworks mobile app. 			
	Right of Way and Land Management	The product helps cities, counties, states, and public agencies manage the end-to-end parcel acquisition process. Starting with surveys and visually mapping each parcel using ESRI ArcGIS, all the way through acquisition by deeds, easements, or eminent domain. The Right of Way and Land Management product eliminates paper forms with online templates to create leases and other legal documents, enables working from the field with the Masterworks mobile app, tracks every workflow and approval, and simplifies reporting on FWHA compliance, environmental clearance requirements, compensation payments, and project impact analysis.	13.3.0	22.0.0	December 2021

Right of Way Management System Product Summary Chart					
Aurigo Masterworks Cloud Suite					
Primary Software Provider	Software Products to be Provided	Functions of Software Products	Current Release Level	Next Version to be Released	Planned Release Date
	Full Lifecycle Construction Management	The product brings together everything needed 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 product has been built specifically for the needs of large capital construction project owners, and plans can be adjusted at any time to ensure optimum resource allocation as projects evolve.	13.3.0	22.0.0	December 2021
	Asset Maintenance	The product allows Asset Managers to manage the ongoing process of prioritizing, maintaining, inspecting, upgrading, and operating physical assets cost-effectively. Agencies can maximize the life of their assets and operate in a financially sustainable manner, whether the Agency is a utility managing large networks or a department of transportation team maintaining roads, bridges, and tunnels.	13.3.0	22.0.0	December 2021

NOTE: No Secondary Software Providers / Subcontractors will be used.

4.2 Technology Products

The Vendor shall take the following into account when addressing the technology components of their proposal:

- The Vendor shall provide the WVDOT with network, desktop, and server requirements for all software.
- The Vendor shall specify the requirements for all required cache servers, web servers, application servers, and database servers for installation per the Vendor's specifications.

Aurigo Masterworks Cloud

- Browser Compatibility on client systems:
 - Google Chrome – Latest and Latest-1 Version
 - Microsoft Edge (Chromium) – Latest and Latest-1 Version
 - Firefox – Latest and Latest-1 Version
 - Safari – Latest and Latest-1 Version
- The Masterworks web application can be run on Agency client systems that support the browsers mentioned above. The Masterworks Mobile App can be accessed on mobile devices such as iPad, Samsung Tablet, Nexus, and Surface that run the following OS:
 - iOS – Latest and Latest-2 Versions
 - Android – Latest and Latest-2 Versions
 - Windows – Latest and Latest-2 Versions
- Aurigo Masterworks Cloud is a SaaS solution hosted on servers managed by Amazon Web Services. No software will be loaded on Agency servers, and there are no network or server requirements the Agency must meet beyond providing internet access for the Agency's users.

4.2.1 Ad Hoc Reporting Tools

A reporting solution shall enable business users to create their own reports and explore enterprise data by downloading data or utilizing standard ad hoc reporting tools.

Aurigo Masterworks will help the Agency stay in front of its processes by bringing real-time reporting to all its Right-of-Way, Utility Relocation, and Railroad Agreement projects. With 300+ industry-standard reports included and the ability to modify and create new reports, Masterworks' powerful reporting engine will give the Agency the crystal-clear visibility it needs to stay informed and in control. Also, Masterworks' dashboards will give the Agency visibility into the status, schedule, issues, and details for every right-of-way acquisition, utility relocation, and railroad agreement process.

The following are examples of Right of Way reports produced from data in Masterworks.

The ROW Map Viewer can show multiple parcels on a single map.

ROW MAP VIEWER

Save

GENERAL

SEARCH CRITERIA

Land(s) : Betty Lane Intersection Improvements X

Parcel Status(s) : Acquired X In Progress X Draft X

Search Reset

SEARCH RESULTS

<input checked="" type="checkbox"/>	Land Name	Property Request No	Parcel Title	Parcel Status
<input checked="" type="checkbox"/>	Betty Lane Intersection Improvements	TRL - 2020 - 1	PARCEL 1	In Progress
<input checked="" type="checkbox"/>	Betty Lane Intersection Improvements	TRE - 2020 - 5	Parcel 3	Acquired
<input checked="" type="checkbox"/>	Betty Lane Intersection Improvements	TRL - 2020 - 7	PARCEL 4	Draft
<input checked="" type="checkbox"/>	Betty Lane Intersection Improvements	TRL - 2020 - 11	PARCEL 7	Draft
<input checked="" type="checkbox"/>	Betty Lane Intersection Improvements	TRE - 2020 - 29	Homing Mountain Junction Transmission Line	Acquired
<input checked="" type="checkbox"/>	Betty Lane Intersection Improvements	TRE - 2020 - 30	Parcel 10	In Progress

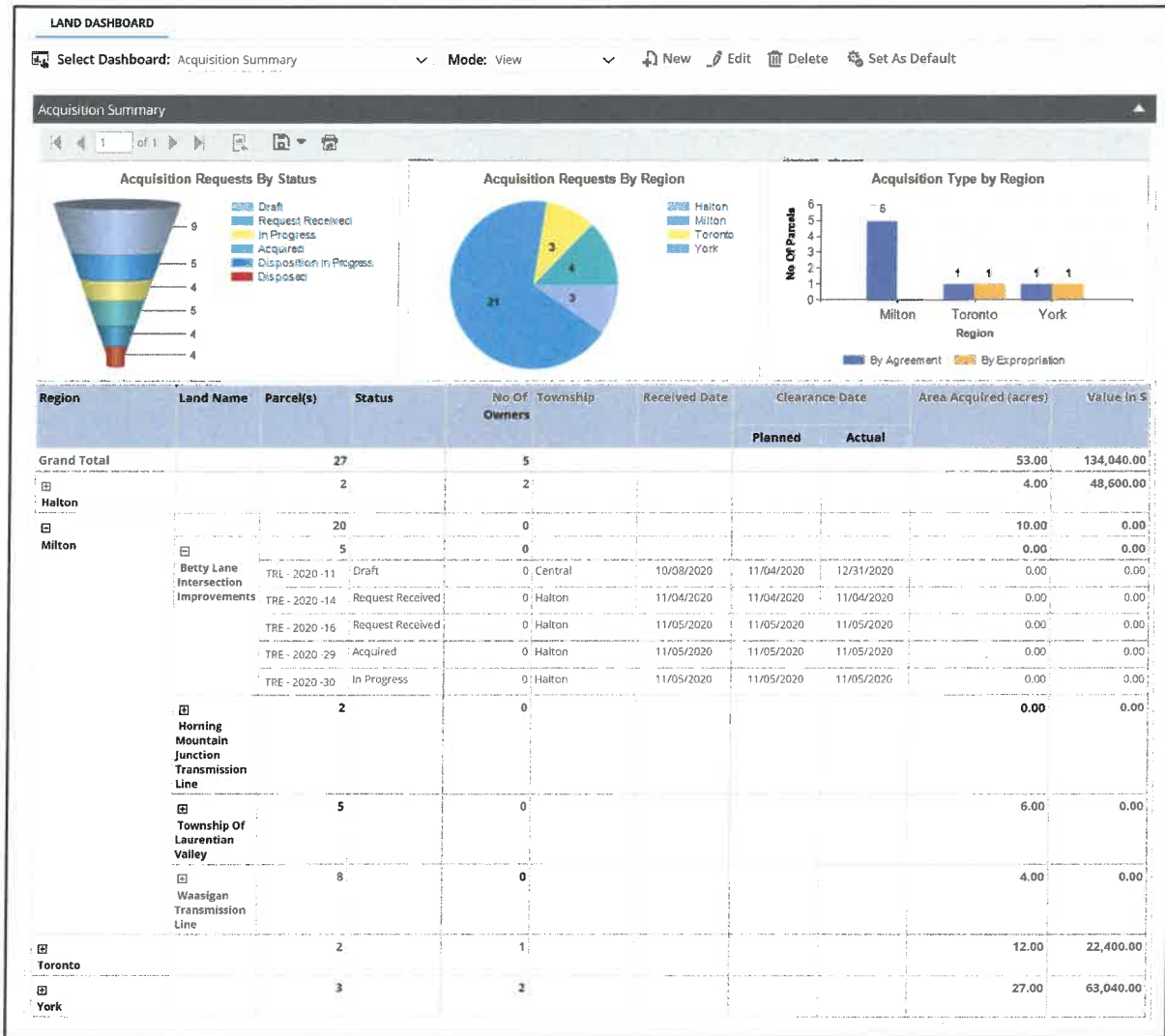
Generate Map View

Base Map: Street Map

Layer(s):

Forms: PARCEL DETAILS

The Land Dashboard can show snapshots of acquisition activity.



The **Acquisition Details Report** shows information about the land being acquired.

DETAILS REPORT

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Subscribe

GENERAL

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MASTERWORKS
 CLOUD

Acquisition - DETAILS REPORT

Land Name	Betty Lane Intersection Improvements	Proximity To 1	Betty Lane Intersection Improvements
Land Type	Plains	Distance 1	80
Owner Type	Tenants	Proximity To 2	Hunters Glen PhI
Description	Betty Lane Intersection Improvements	Distance 2	100
Notes	Paving improvements to streets and sidewalks associated with the first phase of the Water Rehab - West Plano Estates & Hunters Glen project.		Address
			315 Court St, Clearwater, FL 33756, United States
Score	0.00	Area	Pinellas county
Document Folder Structure	Capital Projects	Locality	Pinellas county
Document Properties	ROW Document Metadata	City	
Offline	Yes	State	Florida

Projects

Project Name	Description	Cost (\$)
Betty Lane Intersection Improvements	Intersection Improvements including construction of left turn lanes and bridge reconstruction at Sunset Point Road. Total project estimate \$3.1M funded by Penny. The City of Clearwater has agreed to fund \$323,000 of this project	1,962,332.00

Report Generated on 09/23/2021 12:02 PM
 [Timezone: (UTC-05:00) Eastern Time (US & Canada)]

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The Lease Report shows details for multiple leases.

Land Name	Parcel Name	Lease Number	Lease Name	Accounting Code	Lease Start Date	Lease End Date	Lease Type	Lease Amount	Actual Payment
Betty Lane Intersection Improvements	TRE - 2020 -5	87658	Smith		11/02/2020	11/02/2020			\$1,200.00
	TRE - 2020 -3	676762	name 1		02/12/2021	02/12/2021			\$34,434.00
Chatham to Lakeshore Line	WPR - 2020 -8	87654	James Construction		10/07/2020	10/31/2021			\$43,500.00

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The **Parcel Report** summarizes utility management activities that are affecting the agency's lands.

PARCEL REPORT

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Subscribe

GENERAL

Year: 2020
View Report

1 of 1 Find | Next

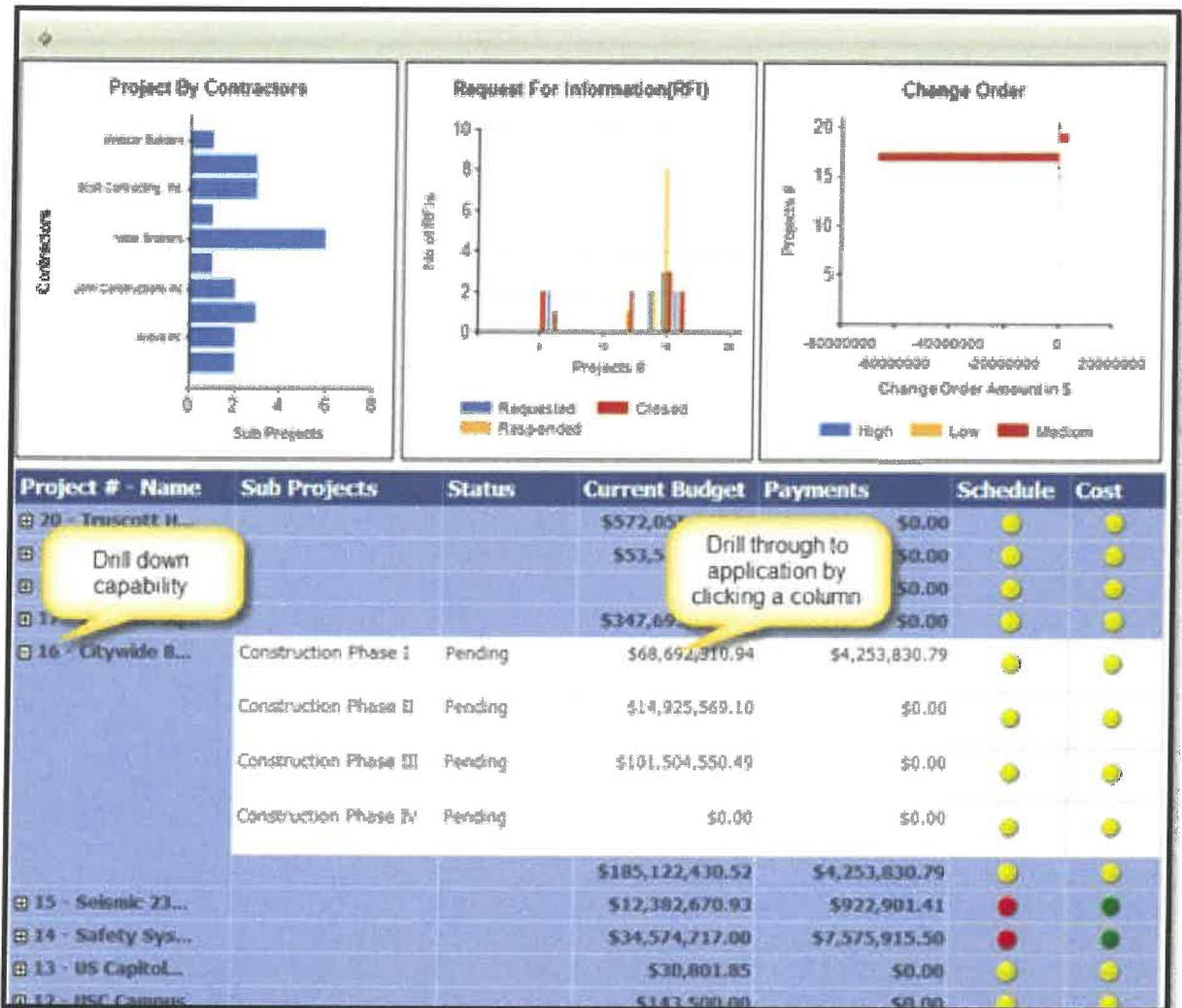
MASTERWORKS CLOUD Parcel Report

	Transformer Expansion	Transmission Line	Wood Pole Replacement
Draft	3	2	1
Request Received	1	2	1
In Progress	-	1	1
Acquired	2	1	1
Disposition In Progress	-	2	2
Disposed	1	1	1

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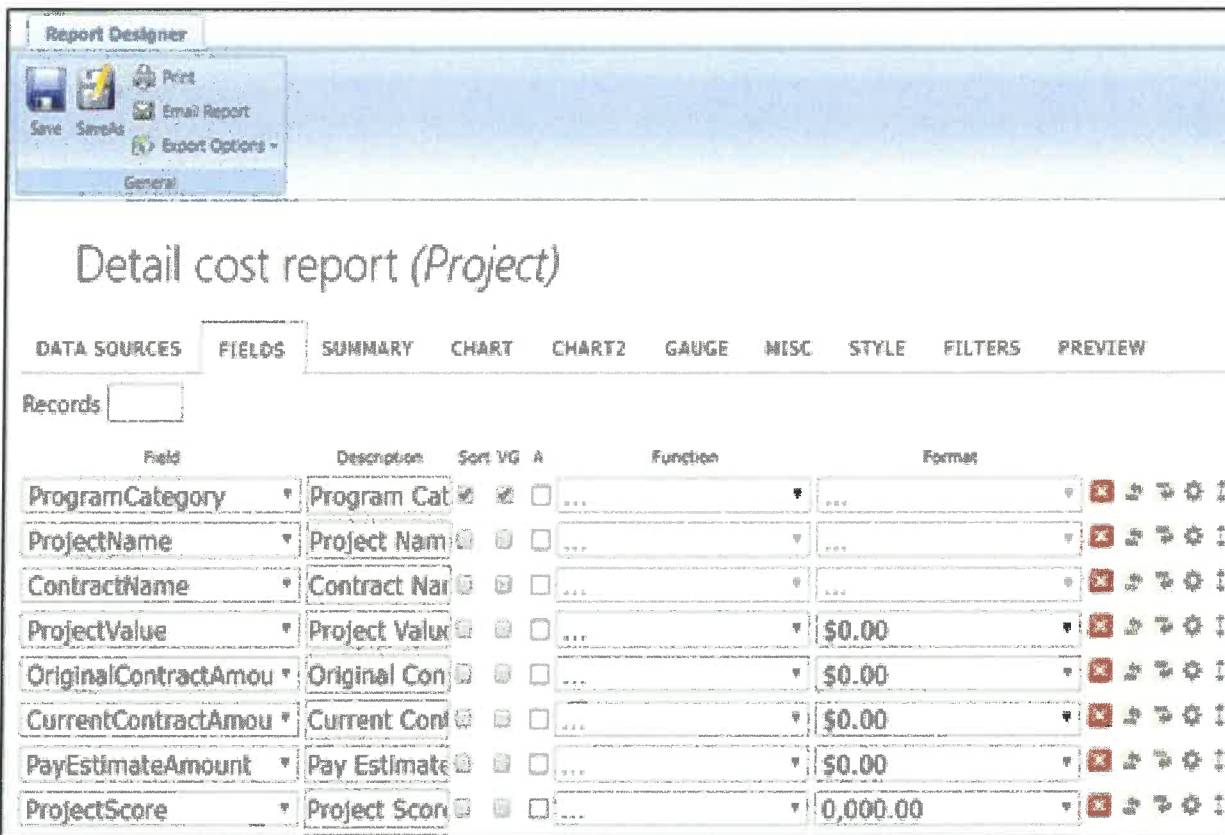
Page 1 of 1

Reports can be configured so authorized users can drill down into categories or drill through into the project itself by clicking directly on the report.



In addition to standard reports and dashboards, users can create reports and dashboards that meet their specific needs. Each user’s home page can be customized with the dashboards they choose, so the relevant data for that user is at the forefront of their Aurigo Masterworks experience each time they log on. Masterworks comes with an ad-hoc report builder that allows users to create new reports. It provides:

- Easy ad-hoc reporting, with a dynamic step-by-step report wizard to assist end-users
- Easy-to-configure dashboard widgets
- No SQL knowledge needed to write reports



4.2.2 Business Intelligence Tools

It is the WVDOT’s intent to take full advantage of the information captured within the new VPS to support Business Intelligence functionality in addition to operational reporting requirements. The expectation for Business Intelligence is to provide the capability for both tactical data analysis associated with program performance and strategic data analysis associated with long-term planning and measurement of operational performance against strategic goals.

Masterworks comes with numerous business intelligence reports. During the elaboration phase of the implementation project, the Aurigo Business Analyst will work with the Agency’s SMEs to determine what

BI reports are needed. Aurigo can then configure new reports that meet the Agency's criteria. The Agency can also use the Report Builder in Masterworks to create and maintain its reports.

If the Agency has a third-party business intelligence tool it likes to use, it may be possible to integrate Masterworks with the BI tool using Masterworks' APIs. During the elaboration phase of the implementation project, Aurigo's Business Analyst and System Integration Specialist will work with the Agency's SMEs to determine the touchpoints and define the best integration method. The interface will be powered by a JSON Web service that supports pagination to send data on a batch basis if necessary. The data can then be uploaded and analyzed in the BI tool.

4.2.3 Product Maintenance

In this section of the proposal, the approach of the Right-of-Way, Utility Relocation and Railroad Agreements system Software Provider(s) and the Third-party Software Provider(s) to meet the WVDOT's requirements to provide product maintenance is described. Upon notification of a maintenance problem, Vendor should perform an adequate level of problem determination to identify and resolve the issues (if possible) based upon known product or customized solution issues. After first having completed proper due diligence, problem determination, and using Software Provider resources and content to attempt to resolve the support incident, the Vendor may triage to the Software Provider and leverage the Software Provider as tier two support whereby the Software Provider may work directly with the WVDOT to fix a particular problem while the Vendor continues to take full responsibility for the outcome of the incident by monitoring progress, logging, tracking, and obtaining other resources (if the Software Provider has not solved the issues) and any other effort required to resolve support incidents that arise during the life of the Contract.

Since Aurigo is both the vendor and the software provider, the support that The Agency will receive will be provided by Aurigo. This provides the Agency with a significant value, as there won't be two companies providing the support, leading to enhanced issue resolution timeframes. In addition, the cost of the provided support is primarily covered by the annual subscription fee that The Agency will pay.

Aurigo's post-warranty support and maintenance services are provided through its Customer Success team. The Agency will be assigned a Customer Success Specialist (CSS) who will be the primary point of contact when issues or defects need to be reported. The CSS will work with the Agency's IT personnel to identify, triage, troubleshoot, and resolve issues as they come in. The Agency's IT personnel will have the option of escalating defects to the Aurigo Customer Success Manager (CSM) or the Aurigo Vice President of Customer Success if needed.



Aurigo is committed to providing long-term technical support and software maintenance services. The Aurigo support desk can be contacted during support hours via telephone or 24x7x365 via email or Web portal. Aurigo is committed to responding within 24 hours. Regardless of how they are submitted to Aurigo, all issues will be tracked through Aurigo's ticketing system. The ticketing system will provide up-to-the-minute status of issue resolution. Generally, communication for in-progress issues will be handled

through the ticketing system, although telephone calls will also be available. Access to the ticketing system will be provided to the Agency's identified IT personnel.

Aurigo Masterworks Cloud is a SaaS offering that is hosted on AWS. The ongoing support and maintenance of Aurigo Masterworks Cloud are included in the yearly subscription fees paid by the Agency. During implementation, support will be provided by the designated Aurigo Project Manager and the members of the Aurigo project team. Aurigo's Customer Success team will provide post-implementation support.

The Agency's Annual Subscription Fees will cover all software maintenance, updates, and hosting deliverables. Aurigo's Customer Success team will take over the solution's support at the end of the warranty period. Aurigo's support for the Agency assumes the Agency's IT Department or Helpdesk will take all end-user calls. The System Administrator Training provided by Aurigo will give the IT Department or Helpdesk the knowledge needed to resolve most support calls received from end-users (i.e., new user setup, password reset, connection problems, etc.). The Aurigo Customer Success team will directly support the Agency's IT Department or Helpdesk. Customer Success will help the IT Department or Helpdesk with any unresolved Tier 1 issues, along with all Tier 2 and Tier 3 issues, reported by the Agency's IT Department or Helpdesk. Customer Success will not directly support the Agency's end-users and will only be involved in calls with end-users if the Agency's IT Department or Helpdesk are also involved.

Issue Management

The issue management process begins when an issue is raised and ends when an issue is resolved, published, and closed. The issue management process includes monitoring the status of each of the issues. At a high level, the issue management process is:

- Identify the issue
- Analyze the issue
- Triage the issue for the priority (high, medium, low)
- Identify the severity of the impact (high, medium, low)
- Work out a plan of action for issue resolution.

Aurigo will review and follow up on issues with the Agency on a weekly basis to make sure issue resolution dates are on track, resolved or receive required escalation. Any issue that needs resolution is reported on a weekly basis. Described below are the actions that will be taken by Aurigo, for each of these procedures:

Issue Management Process Overview		
Step 1	Customer Raises Issue	The customer brings an issue to Aurigo's attention.
Step 2	Issue Investigation is Opened	Aurigo will examine the issue, prioritize it and investigate the cause.
Step 3	Issue is Resolved	Aurigo will present the customer with a solution (after internal review).

Issue Management Process Overview		
Step 4	Issue Resolution is Tested	The customer will test the resolution and confirm that the issue is resolved. If it is not resolved, Aurigo will repeat steps 2 and 3.
Step 5	Issue is Closed	Once the customer confirms that the issue is resolved, it is closed.

4.2.4 Future Direction

The Vendor shall describe the future direction of the technology of the proposed products. Also, include future plans for public sector functionality for the components of the proposed solution. The Vendor should discuss in some detail the strategic product plans for the proposed software products in this response. What have been the significant enhancements to the products in the past few years, and what is expected in the next three (3) years? Describe how the proposed solution provides a stable robust environment for the Agency and provides a platform for growth and technological advances for the future.

Aurigo is constantly enhancing Masterworks Cloud. The software is updated four or more times per year. A product roadmap is defined at the beginning of each year that outlines the planned enhancements for the coming year, including updates to UI/UX, product functionality, technology, platform, and integration enhancements. Some of the major enhancements that have been completed in the product are shown below. This is a sample list of features and not a complete list.

UI/UX

- Major UI/UX Revamp - Facelift of the existing product - (Colors, dashboards, Simplification of Configuration toolkit, etc.)
- Simplified Ribbon Toolbar
- Improved Favourites, Breadcrumbs User experience

Product Functionalities

- Delegation of Authority - Ability to delegate workflow stakeholders to another user for a defined duration
- Capital Planning Enhancements
- Security Enhancements

Integrations

- Integration with Logi for Ad-hoc Reporting.
- Integration with Autodesk PlanGrid for Collaboration with Contractors
- Integration with Zoom for Meeting Scheduling.
- Forge Viewer integration for viewing 2D and 3D drawings and models.

Upcoming Enhancements

- ADA WCAG 2.1 AA Certification
- Capital Planning Enhancements
- Dashboards and Reports Enhancements
- Enhancements on Project Schedule
- Integration with Outlook Plugin
- Integration with 3D BIM Softwares for Quantity Take-off

Tab 5 References

Project Reference 1

Organization Name	Tampa Bay Water, Florida
Project Name	Capital Improvement Program, Project Management, and Right of Way Software Application
Project Description	<p>Tampa Bay Water (TBW) used Microsoft Word, InfoPath, SharePoint, Excel, Project, and Office 365 as their go-to everyday tools for managing projects.</p> <p>Using multiple systems was causing the TBW team to duplicate efforts among staff and left them prone to errors when entering and tracking project data. TBW, therefore, deployed Aurigo Masterworks to streamline its Capital Improvement Program and Project Management Processes. Aurigo Masterworks was integrated with TBW's ArcGIS server. TBW also implemented Aurigo's Mobility solution to streamline field reporting.</p> <p>Through the Right of Way implementation, the Real Estate Department of Tampa Bay Water is looking to improve the efficiency of planning, managing, and executing the acquisition of property and ongoing record tracking and management of agency-controlled properties. The implementation aims to standardize the business processes, increase transparency, and improve stakeholder efficiencies with the use of technology and process improvement.</p> <p>Through Masterworks RoW implementation TBW is replacing their Real Estate Manager system as well as automating processes that were done through excel files for the property acquisitions.</p>
Contact Name	Maribel Medina
Contact Mailing Address	2575 Enterprise Road, Clearwater, FL 33763
Contact Phone Number	727-791-2378
Contact Email Address	mmedina@tampabaywater.org
Right-of-Way, Utility Relocation and Railroad Agreements Software Product and Release Number(s) Implemented	Masterworks 2021 (ver 13.3)
Project Start and End Date	Start Date - Feb, 2015 End Date - Nov, 2015 Row Implementation:

	Start date – Oct, 2020 End date – Aug, 2021
Contract Value	\$ 1,030,754.00

Project Reference 2

Organization Name	Fort Bend County, Texas
Project Name	Project Management and Right of Way management Software
Project Description	<p>Fort Bend County wanted to partner with a vendor that could provide a cloud-based solution to improve process workflows, increase productivity, and enhance collaboration.</p> <p>Aurigo integrated Aurigo Masterworks Cloud with Fort Bend County's existing Enterprise Content Management System (Hyland OnBase), financial system (Lawson Infor 10), MS Office, and ESRI ArcGIS to develop a user-friendly, simple to navigate solution with flexible reporting, audit tracking capabilities, and the ability to maintain an extensive history for funding sources, budgets, change orders, and expenditures.</p> <p>Fort Bend County started with Aurigo's Project Management solution and has expanded its usage to include Aurigo's Right-of-Way product.</p> <p>Through the Masterworks Right of Way implementation, Fort Bend County (FBC) is looking to implement a centralized resource for managing all elements of their land acquisition process including parcel identification, land valuation, negotiation, automation of the eminent domain process, funding, and deed transfer. All the ROW work was done manually on spreadsheets prior to the implementation of Masterworks RoW.</p>
Contact Name	Jillian Peterson
Contact Mailing Address	Fort Bend County Travis Annex, 301 Jackson, Suite 201, Richmond, Texas 77469
Contact Phone Number	281-633-7507
Contact Email Address	jillian.peterson@fortbendcountytexas.gov
Right-of-Way, Utility Relocation and Railroad Agreements Software Product and Release Number(s) Implemented	Masterworks 2021 (Ver 13.2)
Project Start and End Date	Start Date - Jan, 2019 End Date - March, 2020
Contract Value	\$2,164,000.00

Project Reference 3

Organization Name	Iowa Department of Transportation
Project Name	Program and Project Management System
Project Description	<p>Iowa Department of Transportation- Highway division replaced their legacy project management application with Aurigo Masterworks to automate capital planning, project management, bid management, contract management, and federal aid reimbursement processes. Using Masterworks, Iowa DOT manages projects and their budgets, Highway Capital Improvement Program, bid items, and design contracts. Iowa DOT also manages federal obligations in FHWA's FMIS system using Masterworks Federal Aid Reimbursement Management (FARM) product. The implementation also integrates with eleven other applications to ensure seamless process alignment between different standalone DOT systems; GIS, Aashtoware Pre-construction, Workday, Azure AD to name few integrations.</p> <p>The integrated solution of Masterworks Right of way management, Utility relocation, and Environment management system will perform activities such as property management and property inventory functions along with environmental tracking. Masterworks RoW product will manage business processes such as Acquisition and relocation payments, appraisal, condemnation, negotiation and acquisition, property management, relocation, utility relocation, payment processing, project information, and management reports.</p>
Contact Name	Deanna Maifield
Contact Mailing Address	800 Lincoln Way, Ames, IA 50010
Contact Phone Number	515-239-1817
Contact Email Address	Deanna.Maifield@iowadot.us
Right-of-Way, Utility Relocation and Railroad Agreements Software Product and Release Number(s) Implemented	Masterworks 2021 (ver 13.3)
Project Start and End Date	Full implementation Start date: April, 2019 End date: Dec, 2023
Contract Value	\$13,300,000.00

Project Reference 4

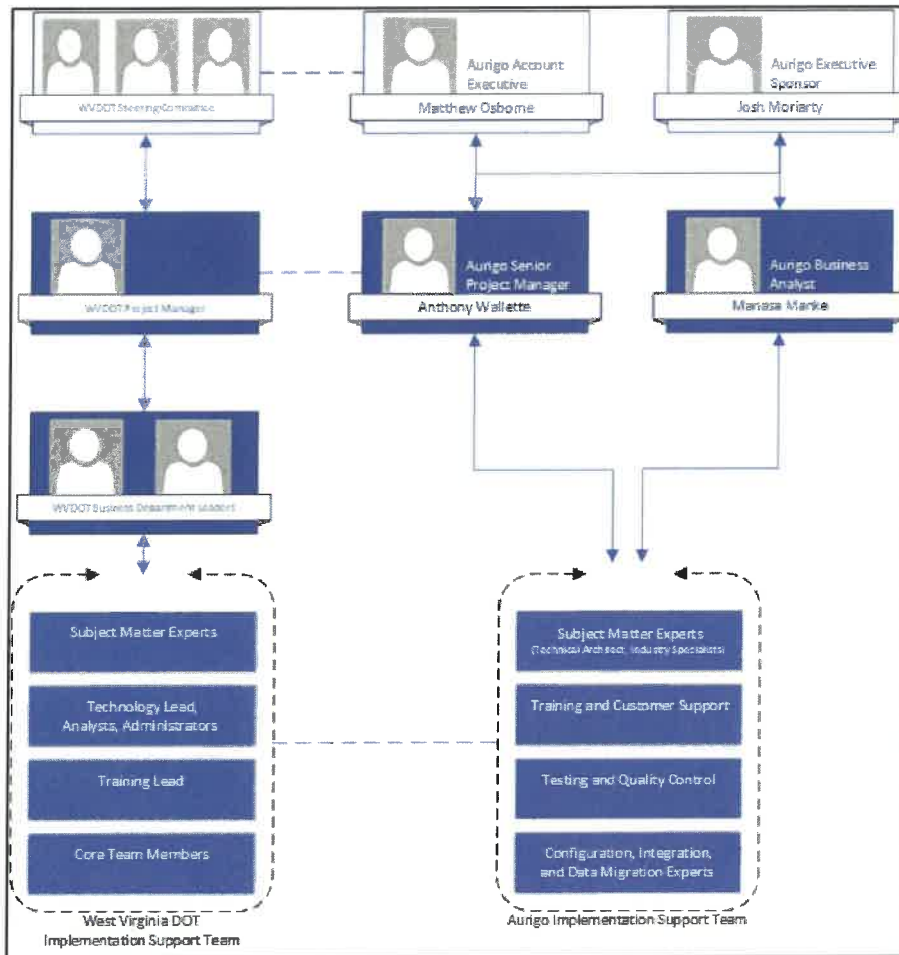
Organization Name	Regional Municipality of York
Project Name	Land Transaction Management Application
Project Description	<p>The Property Services division of the customer is responsible for acquiring land in advance of capital projects. Prior to finding Aurigo, the details for all land projects, parcels, agreements, and easements were stored across various Excel and Word files. The related GIS data and final documents were stored in Geocortex and eDocs respectively, and key information was manually entered into an SQL database for reporting purposes.</p> <p>The customer implemented Aurigo’s Masterworks Right of Way product to streamline its land acquisition and expropriation processes. The new solution includes more than 70 legal templates, automated workflows for amicable acquisition and expropriation, and GIS details for every parcel and easement. In addition, Aurigo’s Professional Services team integrated Masterworks with the existing eDoc system, giving the Property Services team a single application to track the end-to-end detail for every land-related project.</p> <p>Using the Right of Way product from the Aurigo Masterworks Cloud suite, the customer has seen a significant decrease in data and paperwork delays and has streamlined its land acquisition process for new construction projects. Tracking of parcel acquisitions and expropriation in the system is facilitating faster approvals and better visibility for all stakeholders.</p>
Contact Name	Per customer’s internal policy, they are not allowed to be a formal reference. Hence, we are not able to provide the contact details.
Contact Mailing Address	
Contact Phone Number	
Contact Email Address	
Right-of-Way, Utility Relocation and Railroad Agreements Software Product and Release Number(s) Implemented	Masterworks (ver 11.3)
Project Start and End Date	Start Date: May, 2016 End Date: Oct, 2017
Contract Value	\$1,800,000.00

Tab 6 Proposed Project Staff and Organization

6.1 Project Organization

Vendors shall describe their project staffing strategy to coincide with their recommended implementation approach, including any proposed phasing. As part of this project staffing strategy, the Vendor shall recommend when WVDOT participation is expected, how the WVDOT's employees are going to be integrated into the Project Team, where the project team is primarily located and what methods are going to be used to ensure skills and knowledge transfer.

Aurigo's project team will primarily work out of Aurigo's headquarters in Austin, Texas. Configuration Specialists will perform portions of the configuration activity in Aurigo's Bengaluru (India) office. The following organization chart shows the proposed reporting relationship for the Aurigo project team and the Agency's project team. Aurigo will use this project organization structure to communicate effectively with the Agency stakeholders and provide clear escalation paths for delivery or commercial issues.



The Agency personnel detailed below will be required to implement the solution successfully. Aurigo recommends at a minimum the roles and responsibilities outlined below. Aurigo requires continuous

access to the Agency personnel below to ensure successful [project delivery. The Agency is responsible for scheduling and providing access to key personnel throughout the project life, starting from the project planning phase.

The Agency must provide the following resources for oversight and decision-making:

- Executive Sponsor
- Project Sponsor
- Department Leaders

The Agency must also provide the following resources for day-to-day input into the solution’s design, business use cases, technical interface requirements, and implementation planning:

- Project Manager
- Business Analyst(s)
- Design Team – Subject Matter Experts (“SMEs”)
- Technical Application and Interface Support

Aurigo assumes that the Agency will be responsible for each Agency resource’s availability during project delivery. Also, Aurigo requires staff assistance to address the additional responsibilities listed below:

- Provide access to key business stakeholders where appropriate
- The availability, assignment, and participation of all relevant Agency resources per the schedule and project plan
- Ensure scheduling of relevant workshops and the participation and access to relevant SME(s) in alignment with the schedule and project plan
- Providing a productive work environment for the project team, including meeting room facilities for all relevant meetings, workshops, and training

Aurigo will provide Project Team Training for the Agency’s technical staff and subject matter experts involved in implementing the solution to get them accustomed to Masterworks’ functionality. The training will be conducted in short, informal sessions by Aurigo’s project team members for up to ten (10) Agency’s Project Team members at a time as identified by the Agency. Aurigo will provide up to sixteen (16) hours of training in demo-style walkthrough sessions during the business process mapping (BPM) phase or just before the configuration phase of the implementation project. The training aims to provide the Agency’s project team with the necessary information to participate in the business process mapping workshops, sprint reviews, and testing activities. The Project Team Training is informal and will not include any training material or documentation. Standard out-of-the-box Online Help within the system will be available and accessible by the users.

6.2 Personnel Summary Table

Vendors shall provide a Personnel Summary Table listing each proposed project team member. The Personnel Summary Table should be presented in tabular form similar to the example provided below including the proposed role(s), consultant name, total years of relevant implementation experience with the VPS, years of experience in the proposed role, list of public sector clients in the proposed role, and relevant certifications.

Proposed Role(s)	Consultant Name	Experience Summary
Executive Sponsor	Josh Moriarty	PMP certified seasoned director and program manager with 23 years of experience managing delivery and success of construction project management, capital programs, and right-of-way projects for public sectors agencies Utah DOT, Wisconsin DOT, and Port of Portland (Oregon).
Senior Project Manager	Anthony Walette	PMP certified experienced project manager with over a decade of experience leading technology projects for Hawaii DOT, Wyoming DOT, Alaska DOT, and Idaho DOT. He has also performed as a project manager in capital programs and construction project management projects for Iowa DOT (includes right-of-way solution), Baton Rouge Parks and Recreation, and New Jersey Turnpike Authority.
Business Analyst	Manasa Manke	5+ years of experience as an accomplished Business Analyst with demonstrated ability in delivering successful capital programs and construction project management implementations for public sectors like the Ministry of Transportation (Ontario), Dallas Area Rapid Transit, Wisconsin DOT, and Montana DOT.
Solution Architect	Shiva Shankar	12+ years of overall experience with more than five years of experience architecting capital programs and construction project management solutions for customers like Massachusetts DOT, Nevada DOT, and Ford Bend County (Texas).
Lead Trainer	Jane Fisher	20+ years of experience developing and delivering training solutions oriented towards capital programs and construction project management solutions for customers like Texas DOT, Dallas Area Rapid Transit, and Iowa DOT.

6.3 Resumes

Consultant Name Sample 7-years of experience managing implementation of Right-of-Way, Utility Relocation and Railroad Agreement systems for public sector clients. s years as project manager on 2 Right-of-Way, Utility Relocation and Railroad Agreement system projects for state DOTs, State Client Name(s), PMP certification The Vendor shall provide resumes for each role to be filled by Vendor personnel. Proposed consultants should be available to staff the project. For purposes of planning project staffing, the Vendor should assume a start date of November 1, 2021.

Anthony Walette, PMP, MCIS – Senior Project Manager



Anthony Walette is an experienced project manager with over a decade of experience leading technology projects. Before Aurigo, he worked as a Project Manager overseeing State and Provincial Driver License/Identification Cards for an agency working with numerous states and Canadian provinces. This project required communication between international teams of developers and state and provincial Departments of Transportation and state and provincial police agencies. Anthony oversaw and integrated schedules and resources of each of these on behalf of the PMO. Anthony has a Master of CIS from St. Edward's University in Austin, TX, and a BS in Environmental Management Systems from LSU.

As a Project Manager, Anthony will participate in all steering committees and work collaboratively with the Agency team to resolve issues and ensure project success. In his role, he will:

- Be responsible for overall implementation success
- Work with Governance team to establish final project scope and success criteria
- Participate in project reviews to assess risks and issues and plan mitigations and resolutions with the project team.
- Build a long-term partnering relationship between the Agency and Aurigo
- Ensure regular and open communication between Aurigo team members and the VDO's team participants
- Infuse Aurigo best practices throughout the project organization

Customer Successes

Iowa Department of Transportation

Iowa DOT was using a home-grown, 15-year-old system experiencing many limitations due to the age of the solution. Iowa DOT was looking for a solution that would replace the functionality of the Project Scheduling System and provide the Enterprise environment that the DOT visualized. Iowa DOT needed Masterworks to support planning, monitoring, and controlling delivery of Iowa DOT's capital projects and other types of Iowa DOT projects, including system planning projects, maintenance projects, facilities design/construction projects, research projects, information technology projects, and other various types of projects. Through the implementation of Masterworks, Iowa DOT realized its goals.

Manasa Manke – Business Analyst



Manasa is an accomplished Business Analyst with demonstrated ability in delivering successful Masterworks implementations. She has been with Aurigo Software Technologies for over five years and delivered Masterworks solutions across various Canadian and US projects. Coming from a Civil engineering background, Manasa has a keen understanding of the intricate business processes of the Construction domain. She has acquired vast expertise working with distributed teams and has an extensive understanding of various knowledge areas ranging from planning, project management, land management, contract management, and asset management. Manasa’s business process analysis and re-engineering skills have played a vital role in delivering project scope definitions and ensuring the highest levels of client satisfaction. She possesses excellent domain knowledge and has experience providing innovative solutions for complex business processes using Aurigo Masterworks Cloud.

As a Business Analyst, Manasa will be the primary product expert for Aurigo Masterworks Cloud. She will work collaboratively with the Agency team to achieve efficient requirement gathering and project success. In her role, Manasa will:

- Function as the subject matter expert for Aurigo Masterworks Cloud
- Be responsible for requirement gathering and documentation
- Ensure the configuration team is configuring Masterworks per contracted requirements
- Be the primary point of contact for the Agency team when there are requirement changes
- Be responsible for appropriate translation of customer requirements into software deliverables
- Nurture a rapport with the Agency team through transparency and regular communication

Customer Success

Ministry of Transportation, Ontario

The Ministry of Transportation, Ontario, has implemented Aurigo Masterworks solution for capital planning, forecasting and contract management for the Ministry stakeholders. Manasa played an instrumental role in the project by executing the following responsibilities:

1. Analyzed, mapped, and designed solutions for business process automation requirements
2. Guided the business teams through configuration decisions using best practices and her prior industry knowledge
3. Designing functional solutions for over nine system Integrations and data migration from Legacy systems into Masterworks
4. Demonstrated great expertise in simplifying complex requirements and improving the overall efficiency of the solution
5. Provided project vision and led solution development initiatives

Dallas Area Rapid Transit

The Dallas Area Rapid Transit (DART) has implemented Aurigo Masterworks Cloud for capital planning, project management, and contract management. Manasa was responsible for the phase-2 implementation of Masterworks and was extensively involved in implementing the project and contract management requirements, designing and driving the pre-User Acceptance Testing (UAT) strategy, and performing System Integration Testing and End-User Training (Train-The-Trainer).

Wisconsin Department of Transportation

The Wisconsin Department of Transportation has implemented Aurigo Masterworks Cloud for planning, project management, and consultant contract management. Manasa was responsible for efficiently strategizing and designing the data migration processes to move data from the legacy systems to Masterworks, ensuring that the business validations set up in Masterworks were intact.

Montana Department of Transportation

The Montana Department of Transportation (MDT) is currently automating its capital planning and Federal Aid Reimbursement processes and replacing its in-house program and project management systems with Aurigo Masterworks Cloud. Manasa is responsible for steering the business process automation discussions with the SMEs, drafting detailed configuration specifications, reviewing configuration progress with MDT, incorporating feedback, and driving the entire configuration and implementation lifecycle.

Jane “Star” Fisher, MS, CPLP – Lead Trainer



Jane Fisher is an award-winning Learning and Performance Professional with over 20 years of experience designing and developing technical and interpersonal skills learning solutions. Before Aurigo, Jane has provided various learning solutions and job-competency programs to clients, including Mars, Dell, Chevron, BP, CUNY, and Sears. Jane received her MS from Boise State University in Instructional and Performance Technology, BS from Texas A&M University in Biochemistry, and a Certified Professional in Learning and Performance (CPLP) accreditation.

As a Training Lead, Jane works collaboratively with the customer Training Management Team to facilitate a robust training program aligned with the implemented solution. She is responsible for the overall management of the training sessions identified in Aurigo’s response. For the Agency, Jane will:

- Develop a robust Training Plan to ensure the training is aligned with the deployed solution
- Manage the development of training material and user documentation
- Design and develop the courseware for the training sessions as applicable
- Oversee training delivery

Customer Success

Texas Department of Transportation (TxDOT)

Texas Department of Transportation (TxDOT) was replacing many of its legacy programs for construction management. These programs included project controls, document management, right of way, materials management, and administrative management of the TxDOTCONNECT system. Jane was part of the Training Management Team for the project. She was responsible for training strategy and the delivery and the success of Instructor-led training solutions.

Dallas Area Rapid Transit (DART)

Dallas Area Rapid Transit (DART) is upgrading its project management systems and standardizing systems throughout departments. The enterprise project management (EPM) system includes scalable solutions to support large construction projects, system planning, maintenance and rehabilitation, information technology, and research projects. Jane is the Training Lead for this project and is responsible for supporting its successful delivery. Training responsibilities include developing a robust training plan, finalizing Training strategies, designing and developing course curriculum, and overseeing training delivery.

Iowa Department of Transportation

Iowa DOT was using a home-grown, 15-year-old system experiencing many limitations due to the age of the solution. Iowa DOT was looking for a solution that would replace the functionality of the Project Scheduling System and provide the Enterprise environment that the DOT visualized. Iowa DOT needed Masterworks to support planning, monitoring, and controlling delivery of Iowa DOT's capital projects and other types of Iowa DOT projects, including system planning projects, maintenance projects, facilities design/construction projects, research projects, information technology projects, and other various types of projects. Jane is the Training Lead for this project and is responsible for supporting its successful delivery. Training responsibilities include developing a robust training plan, finalizing training strategies, designing and developing course curriculum, and overseeing training delivery.

6.4 Staffing Changes

No change may be made in the staffing of the Right-of-Way, Utility Relocation and Railroad Agreement project without the prior approval of the WVDOT. Throughout the term of the Contract resulting from this RFP, the Vendor shall: • Provide qualified personnel to perform all Services required in this RFP; • Promptly remove and replace personnel at the request of the WVDOT; and • Provide written notice and seek WVDOT approval of any plan to add, remove and replace personnel.

Aurigo agrees to meet this requirement.

Tab 7 Aurigo’s Proposed Plan for Providing Services

In order to facilitate the Evaluation Committee’s comparison of proposals, the Vendor’s response to this section of the RFP shall conform to the following format without exception.

Please see Aurigo’s Proposed Plan for Providing Services in the narrative responses below (Sections 7.1 through 7.6).

7.1 Timeline and Implementation Phasing Approach

The Vendor shall describe its proposed implementation timing and phasing approach and include a phasing schedule and timeline which outlines their project plan and detailed staffing. It should be based on the Vendor’s experience with the solution being proposed and provide the WVDOT with the best balance of cost and risk for the implementation of the VPS. The Vendor should also provide a thorough explanation of its rationale to support its proposed phasing. Related cost information should be presented in the Cost Proposal and shall not be included in the Technical Proposal. Any required clarifications regarding the phasing or timelines should be addressed during the Discussion and Best and Final Offer process. The description provided should include the following information for each module:

- Implementation timeframes
- Milestones and implementation phasing (if any)
- Deliverables with planned approval date and mapped in the work plan
- Any software upgrades that should occur during the project

A project milestone calendar showing Aurigo’s phasing approach is attached below.

West Virginia Department of Transportation Project Milestone Calendar											Updated: 9/22/2021		
West Virginia Department of Transportation ROW Management System	2022												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Contract Execution	★												
Project Team Mobilization													
Project Planning													
Business Process Mapping													
Solution Configuration													
Integration & Data Migration (T&M)													
Solution Testing													
Training													
Production Release (Go Live)													
Transition to Support													

NOTES:

1. Assumes contract will be signed prior to January 2022 and Project Team Mobilization begins on January 3, 2022
2. Payments for implementation services is dependent on Aurigo meeting defined milestones and the Agency accepting the deliverables. The milestones related to payments will be determined during the Project Planning phase.

A proposed project plan is attached on the following six (6) pages.

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names	2022
							Q4 Q1 Q2 Q3 Q4
1	West Virginia DOT ROW Management System Project Schedule	266 days	Mon 12/20/21	Mon 12/26/22			
2	Contract Execution	1 day	Mon 12/20/21	Mon 12/20/21			
3	Contract Execution	1 day	Mon 12/20/21	Mon 12/20/21		Aurigo,WV DOT	Aurigo,WV DOT
4	Milestone: Contract Execution	0 days	Mon 12/20/21	Mon 12/20/21	3	Aurigo,WV DOT	12/20
5	Project Initiation	21 days	Tue 12/21/21	Tue 1/18/22			
6	Project Team Mobilization	15 days	Tue 12/21/21	Mon 1/10/22	4	Aurigo,WV DOT	Aurigo,WV DOT
7	Introductory Call with WV DOT PM	1 day	Tue 1/11/22	Tue 1/11/22	6	PM's	PM's
8	Project site setup	1 day	Wed 1/12/22	Wed 1/12/22	7	Aurigo	Aurigo
9	Project Core Team Formation	5 days	Wed 1/12/22	Tue 1/18/22	7	Aurigo,WV DOT	Aurigo,WV DOT
10	Milestone: Project Initiation Complete	0 days	Tue 1/18/22	Tue 1/18/22	9		1/18
11	Project Planning	21 days	Wed 1/19/22	Wed 2/16/22			
12	Preparation for Project Kickoff & Business Workshops	20 days	Wed 1/19/22	Tue 2/15/22	10	Aurigo,WV DOT	Aurigo,WV DOT
13	PMP and Sub-Plans	21 days	Wed 1/19/22	Wed 2/16/22			
14	Project Management Plan	15 days	Wed 1/19/22	Tue 2/8/22	10	PM's	PM's
15	Milestone: Project Management Plan	0 days	Tue 2/8/22	Tue 2/8/22	14	PM's	2/8
16	Requirements Traceability Matrix	15 days	Wed 1/19/22	Tue 2/8/22	10	BA's	BA's
17	Milestone: Requirements Traceability Matrix	0 days	Tue 2/8/22	Tue 2/8/22	16	BA's	2/8
18	Baselined Project Schedule	20 days	Wed 1/19/22	Tue 2/15/22	10	PM's	PM's
19	Milestone: Baselined Project Schedule	0 days	Tue 2/15/22	Tue 2/15/22	18	PM's	2/15
20	Project Kick-off Meeting	1 day	Wed 2/16/22	Wed 2/16/22	19	Aurigo,WV DOT	Aurigo,WV DOT
21	Milestone: Project Kick-off	0 days	Wed 2/16/22	Wed 2/16/22	20	Aurigo,WV DOT	2/16
22	Milestone: Project Planning Complete	0 days	Wed 2/16/22	Wed 2/16/22	21		2/16
23	Business Process Mapping (BPM)	86 days	Wed 1/19/22	Wed 5/18/22			
24	Business Process Mapping Sessions Plan	20 days	Wed 1/19/22	Tue 2/15/22	12FF	Aurigo	Aurigo

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names	2022					
							Q4	Q1	Q2	Q3	Q4	
25	Milestone: Business Process Mapping Sessions Plan	0 days	Tue 2/15/22	Tue 2/15/22	24	Aurigo		◆ 2/15				
26	Business Process Sessions - Group 1	10 days	Thu 2/17/22	Wed 3/2/22	22	Aurigo,WV DOT		▼ Aurigo,WV DOT				
27	Business Process Sessions - Group 2	10 days	Thu 3/3/22	Wed 3/16/22	26	Aurigo,WV DOT		▼ Aurigo,WV DOT				
28	Business Process Sessions - Group 3	10 days	Thu 3/17/22	Wed 3/30/22	27	Aurigo,WV DOT		▼ Aurigo,WV DOT				
29	Milestone: Business Process Mapping Sessions Complete	0 days	Wed 3/30/22	Wed 3/30/22	28			◆ 3/30				
30	System Integration & Data Migration	65 days	Thu 2/17/22	Wed 5/18/22				┌───┐				
31	Requirements Elaboration	30 days	Thu 2/17/22	Wed 3/30/22	27FF,28FF	Aurigo,WV DOT		◀ Aurigo,WV DOT				
32	Integration & Data Migration Technical Design	15 days	Thu 3/31/22	Wed 4/20/22	31	Aurigo		▼ Aurigo				
33	Integration & Data Migration Specifications	20 days	Thu 4/21/22	Wed 5/18/22	32	Aurigo		▼ Aurigo				
34	Milestone: Integration & Data Migrations Specs Complete	0 days	Wed 5/18/22	Wed 5/18/22	33			◆ 5/18				
35	Configuration Specifications	45 days	Thu 3/10/22	Wed 5/11/22				┌───┐				
36	Configuration Specification - Group 1	25 days	Thu 3/10/22	Wed 4/13/22				┌───┐				
37	Configuration Specifications Documentation	15 days	Thu 3/10/22	Wed 3/30/22	26FS+5 days	Aurigo		▼ Aurigo				
38	Configuration Specs Review	5 days	Thu 3/31/22	Wed 4/6/22	37	WV DOT		▼ WV DOT				
39	Configuration Specs Updates	3 days	Thu 4/7/22	Mon 4/11/22	38	Aurigo		▼ Aurigo				
40	Configuration Specs Signoff by WV DOT	2 days	Tue 4/12/22	Wed 4/13/22	39	WV DOT		▼ WV DOT				
41	Milestone: Configuration Specifications Group 1 Complete	0 days	Wed 4/13/22	Wed 4/13/22	40			◆ 4/13				
42	Configuration Specification - Group 2	25 days	Thu 4/7/22	Wed 5/11/22				┌───┐				
43	Configuration Specifications Documentation	15 days	Thu 4/7/22	Wed 4/27/22	27FS+5 days,28FS	Aurigo		▼ Aurigo				
44	Configuration Specs Review	5 days	Thu 4/28/22	Wed 5/4/22	43	WV DOT		▼ WV DOT				

ID	Task Name	Duration	Start	Finish	Predecessor	Resource Names	2022				
							Q4	Q1	Q2	Q3	Q4
45	Configuration Specs Updates	3 days	Thu 5/5/22	Mon 5/9/22	44	Aurigo					
46	Configuration Specs Signoff by WVDOT	2 days	Tue 5/10/22	Wed 5/11/22	45	WVDOT					
47	Milestone: Configuration Specifications Group 2 Complete	0 days	Wed 5/11/22	Wed 5/11/22	46						
48	Configuration Specification - Group 3	25 days	Thu 3/31/22	Wed 5/4/22							
49	Configuration Specifications Documentation	15 days	Thu 3/31/22	Wed 4/20/22	28	Aurigo					
50	Configuration Specs Review	5 days	Thu 4/21/22	Wed 4/27/22	49	WVDOT					
51	Configuration Specs Updates	3 days	Thu 4/28/22	Mon 5/2/22	50	Aurigo					
52	Configuration Specs Signoff by WVDOT	2 days	Tue 5/3/22	Wed 5/4/22	51	WVDOT					
53	Milestone: Configuration Specifications Group 3 Complete	0 days	Wed 5/4/22	Wed 5/4/22	52						
54	Milestone: Configuration Specifications Complete	0 days	Wed 5/4/22	Wed 5/4/22	53						
55	Solution Configuration (Iterative Configuration & Reviews)	112 days	Thu 4/7/22	Fri 9/9/22							
56	Sprint 0 - Configuration team and Setup	12 days	Thu 4/7/22	Fri 4/22/22							
57	Configuration Team Formation	5 days	Thu 4/7/22	Wed 4/13/22	41FF	Aurigo					
58	Environment Setup (Dev, QA, SIT)	2 days	Thu 4/14/22	Fri 4/15/22	57	Configuration Te					
59	Sprint Grooming	5 days	Mon 4/18/22	Fri 4/22/22	58	Configuration Te					
60	Milestone: Implementation Team Ready to Begin	0 days	Fri 4/22/22	Fri 4/22/22	59,41						
61	Sprint 1 - Configuration	25 days	Mon 4/25/22	Fri 5/27/22							
62	Sprint Planning and PBI Creation	5 days	Mon 4/25/22	Fri 4/29/22	60	Configuration Te					
63	Sprint Commit Report	1 day	Fri 4/29/22	Fri 4/29/22	62FF	Scrum Master					
64	Configuration	15 days	Mon 5/2/22	Fri 5/20/22	63	Configuration Te					

ID	Task Name	Duration	Start	Finish	Predecessor	Resource Names	2022				
							Q4	Q1	Q2	Q3	Q4
65	Sprint End Report	0 days	Fri 5/20/22	Fri 5/20/22	64	Scrum Master			5/20		
66	Update SIT Environment for Demo	0 days	Fri 5/20/22	Fri 5/20/22	64	Configuration Te			5/20		
67	BA Walk-thru	2 days	Mon 5/23/22	Tue 5/24/22	64	Aurigo BA			Aurigo BA		
68	Sprint 1 - Review	3 days	Wed 5/25/22	Fri 5/27/22							
69	Review and Feedback	3 days	Wed 5/25/22	Fri 5/27/22	67	WV DOT			WV DOT		
70	Sprint 2 - Configuration	25 days	Mon 5/16/22	Fri 6/17/22							
71	Sprint Planning and PBI Creation	5 days	Mon 5/16/22	Fri 5/20/22	64FS-5 da	Configuration Te			Configurati		
72	Sprint Commit Report	1 day	Fri 5/20/22	Fri 5/20/22	64FF	Scrum Master			Scrum Mast		
73	Configuration	15 days	Mon 5/23/22	Fri 6/10/22	64	Configuration Te			Configurat		
74	Sprint End Report	0 days	Fri 6/10/22	Fri 6/10/22	73	Scrum Master			6/10		
75	Update SIT Environment for Demo	0 days	Fri 6/10/22	Fri 6/10/22	73	Configuration Te			6/10		
76	BA Walk-thru	2 days	Mon 6/13/22	Tue 6/14/22	73	Aurigo BA			Aurigo BA		
77	Sprint 2 - Review	3 days	Wed 6/15/22	Fri 6/17/22							
78	Review and Feedback	3 days	Wed 6/15/22	Fri 6/17/22	76	WV DOT			WV DOT		
79	Sprint 3 - Configuration	25 days	Mon 6/6/22	Fri 7/8/22							
80	Sprint Planning and PBI Creation	5 days	Mon 6/6/22	Fri 6/10/22	73FS-5 da	Configuration Te			Configurat		
81	Sprint Commit Report	1 day	Fri 6/10/22	Fri 6/10/22	73FF	Scrum Master			Scrum Mas		
82	Configuration	15 days	Mon 6/13/22	Fri 7/1/22	73	Configuration Te			Configura		
83	Sprint End Report	0 days	Fri 7/1/22	Fri 7/1/22	82	Scrum Master			7/1		
84	Update SIT Environment for Demo	0 days	Fri 7/1/22	Fri 7/1/22	82	Configuration Te			7/1		
85	BA Walk-thru	2 days	Mon 7/4/22	Tue 7/5/22	82	Aurigo BA			Aurigo Ba		
86	Sprint 3 - Review	3 days	Wed 7/6/22	Fri 7/8/22							
87	Review and Feedback	3 days	Wed 7/6/22	Fri 7/8/22	85	WV DOT			WV DOT		
88	Sprint 4 - Configuration	25 days	Mon 6/27/22	Fri 7/29/22							
89	Sprint Planning and PBI Creation	5 days	Mon 6/27/22	Fri 7/1/22	82FS-5 da	Configuration Te			Configura		
90	Sprint Commit Report	1 day	Fri 7/1/22	Fri 7/1/22	82FF	Scrum Master			Scrum Ma		
91	Configuration	15 days	Mon 7/4/22	Fri 7/22/22	82	Configuration Te			Configur		

ID	Task Name	Duration	Start	Finish	Predecessor	Resource Names	2022				
							Q4	Q1	Q2	Q3	Q4
92	Sprint End Report	0 days	Fri 7/22/22	Fri 7/22/22	91	Scrum Master					7/22
93	Update SIT Environment for Demo	0 days	Fri 7/22/22	Fri 7/22/22	91	Configuration Te					7/22
94	BA Walk-thru	2 days	Mon 7/25/22	Tue 7/26/22	91	Aurigo BA					Aurigo
95	Sprint 4 - Review	3 days	Wed 7/27/22	Fri 7/29/22							
96	Review and Feedback	3 days	Wed 7/27/22	Fri 7/29/22	94	WV DOT					WV DOT
97	Sprint 5 - Configuration	25 days	Mon 7/18/22	Fri 8/19/22							
98	Sprint Planning and PBI Creation	5 days	Mon 7/18/22	Fri 7/22/22	91FS-5 da	Configuration Te					Configu
99	Sprint Commit Report	1 day	Fri 7/22/22	Fri 7/22/22	98FF	Scrum Master					Scrum M
100	Configuration	15 days	Mon 7/25/22	Fri 8/12/22	91	Configuration Te					Config
101	Sprint End Report	0 days	Fri 8/12/22	Fri 8/12/22	100	Scrum Master					8/12
102	Update SIT Environment for Demo	0 days	Fri 8/12/22	Fri 8/12/22	100	Configuration Te					8/12
103	BA Walk-thru	2 days	Mon 8/15/22	Tue 8/16/22	100	Aurigo BA					Aurigo
104	Sprint 5 - Review	3 days	Wed 8/17/22	Fri 8/19/22							
105	Review and Feedback	3 days	Wed 8/17/22	Fri 8/19/22	103	WV DOT					WV DO
106	Feedbacks Sprint & Review	20 days	Mon 8/15/22	Fri 9/9/22							
107	Feedback Sprint & Review	20 days	Mon 8/15/22	Fri 9/9/22	100	Aurigo,WV DOT					Aurig
108	Milestone: Feedbacks Complete	0 days	Fri 9/9/22	Fri 9/9/22	107						9/9
109	Milestone: Configuration Complete	0 days	Fri 9/9/22	Fri 9/9/22	108						9/9
110	Regression & System Testing	32 days	Mon 9/12/22	Tue 10/25/22							
111	Regression Testing	5 days	Mon 9/12/22	Fri 9/16/22	109	Aurigo					Aurig
112	Regression Testing Fixes	5 days	Mon 9/19/22	Fri 9/23/22	111	Aurigo					Aurig
113	Milestone: Regression Testing Complete	0 days	Fri 9/23/22	Fri 9/23/22	112						9/23
114	System Integration Testing	10 days	Mon 9/26/22	Fri 10/7/22	113	WV DOT					WV
115	System Integration Testing Fixes	10 days	Mon 10/10/22	Fri 10/21/22	114	Aurigo					Au
116	System Integration Testing Validation	2 days	Mon 10/24/22	Tue 10/25/22	115	WV DOT					WV
117	Milestone: System Testing Complete	0 days	Tue 10/25/22	Tue 10/25/22	116						10
118	User Acceptance Testing	42 days	Wed 9/14/22	Thu 11/10/22							

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names	2022							
							Q4	Q1	Q2	Q3	Q4			
119	UAT Prep and Test Scripts	30 days	Wed 9/14/22	Tue 10/25/22	117FF	Configuration Te								
120	User Acceptance Testing	5 days	Wed 10/26/22	Tue 11/1/22	119,117	WVDOT								
121	UAT Defect Fixes	5 days	Wed 11/2/22	Tue 11/8/22	120	Configuration Te								
122	Final Validation by WVDOT	2 days	Wed 11/9/22	Thu 11/10/22	121	WVDOT								
123	Milestone: UAT Sign Off	0 days	Thu 11/10/22	Thu 11/10/22	122									
124	Training	179 days	Mon 3/14/22	Thu 11/17/22										
125	Training Plan	30 days	Mon 3/14/22	Fri 4/22/22	60FF	Aurigo								
126	Training Material Creation	90 days	Wed 6/22/22	Tue 10/25/22	117FF	Aurigo								
127	Train the Trainer Training	5 days	Fri 11/11/22	Thu 11/17/22	123	Aurigo								
128	System Admin Training	2 days	Wed 11/16/22	Thu 11/17/22	127FF	Aurigo								
129	Milestone: Training Delivery Complete	0 days	Thu 11/17/22	Thu 11/17/22	128									
130	Production Release	17 days	Fri 11/4/22	Mon 11/28/22										
131	Production Release Preparation	10 days	Fri 11/4/22	Thu 11/17/22	129FF	Configuration Te								
132	Production Users, Roles & Permissions Setup	4 days	Fri 11/18/22	Wed 11/23/22	131	Configuration Team								
133	Production Deployment	1 day	Thu 11/24/22	Thu 11/24/22	132	Configuration Te								
134	Deployment Validation	2 days	Fri 11/25/22	Mon 11/28/22	133	Aurigo,WVDOT								
135	Milestone: Production Release complete	0 days	Mon 11/28/22	Mon 11/28/22	134									
136	Project Closeout and Transition to Production Support	20 days	Tue 11/29/22	Mon 12/26/22										
137	Project Acceptance & Sign-off	20 days	Tue 11/29/22	Mon 12/26/22	135	Aurigo,WVDOT								
138	Warranty Period - Move to Production Support	20 days	Tue 11/29/22	Mon 12/26/22	135	Aurigo,WVDOT								
139	Milestone: Project Closeout	0 days	Mon 12/26/22	Mon 12/26/22	138									

Please see Aurigo’s responses in TAB 6 for detailed staffing information and how Aurigo’s staff will be involved in each phase of the implementation project.

There will be no software upgrades during the implementation project. The Agency’s Right of Way Management System will receive the latest version of Aurigo Masterworks Cloud when it goes into production.

7.2 System Development Methodology Overview

It is the Vendor’s responsibility to propose a system development methodology (SDM) that is defined, documented, repeatable, and emphasizes project management best practices. The project scope and cost should include training the WVDOT project team staff on the Vendor’s SDM. The proposal should identify certifications the Vendor has received, such as Software Engineering Institute’s (SEI) “Capability Maturity Model” (CMM) assessments, the International Organization for Standardization (ISO) 900x certifications, the “Institute of Electrical and Electronics Engineers” (IEEE) Software Engineering Standards, and any other pertinent certifications.

Aurigo uses the Microsoft Secure Development Lifecycle (SDLC) as a framework for ensuring Aurigo Masterworks Cloud is developed as a secure application. Aurigo’s Configuration Specialists will follow these same procedures when configuring and customizing the Agency’s Right of Way Management System. Aurigo’s standard checks for vulnerabilities include OWASP Top 10 vulnerability scans and Cloud Security Static Code vulnerability checks using SonarQube.

Aurigo provides its developers and configuration specialists with training on security requirements, security design, secure coding, and functional security testing. For the Agency’s technical staff and subject matter experts involved in implementing the solution, Aurigo will provide Project Team Training to get them accustomed to Masterworks’ functionality. The training will be conducted in short, informal sessions by Aurigo’s project team members for up to ten (10) Agency’s Project Team members identified by the Agency. Aurigo will provide up to sixteen (16) hours of training in demo-style walkthrough sessions during the business process mapping (BPM) phase or just before the configuration phase of the implementation project. This training aims to provide the Agency’s project team with the necessary information to participate in the business process mapping workshops, sprint reviews, and testing activities. The Project Team Training is informal and will not include any training material or documentation. Standard out-of-the-box Online Help accessible from within the system will be available for users.

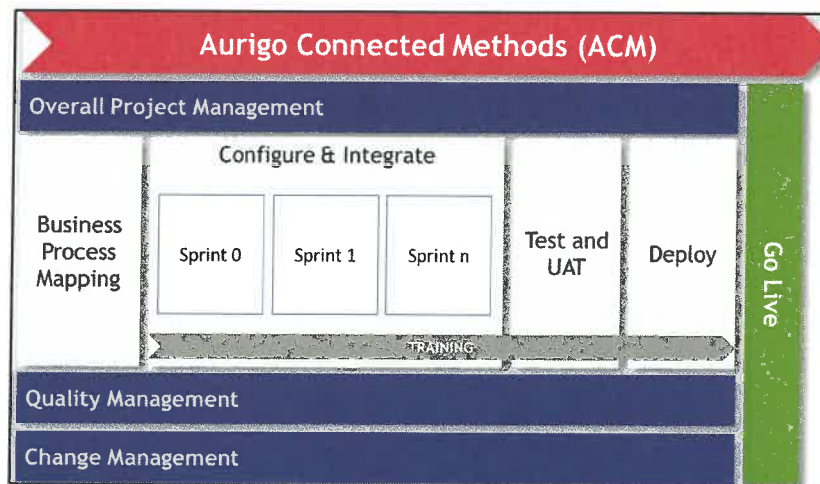
Aurigo’s Project Managers are PMI-PMP certified and experts in industry best practices for project management methodologies used for software implementation projects. Aurigo’s Business Analysts are Masterworks Certified Professionals who provide Masterworks product expertise and work as functional consultants to meet the Agency’s business needs.

7.3 Project Management Methodology and Approach

The Vendor shall describe its approach to managing the project. As part of its project management approach, the Vendor should describe the project management tools, standards, controls, and procedures that are going to be utilized to create a proven, reliable process. This section should also include a brief description of the Vendor’s approach for managing the project on a daily basis. The intent of this information is to provide assurance to the WVDOT of the Vendor’s demonstrated ability to manage large,

complex software projects such as the Right-of-Way, Utility Relocation and Railroad Agreement system project in a manner that ensures quality, project success, long-term viability, and lowest cost of ownership.

Aurigo Connected Methods (ACM) is Aurigo’s proprietary full lifecycle methodology for planning, delivering, maintaining, and managing Aurigo Masterworks Cloud implementation projects. ACM serves as a vehicle for continuous improvement that evolves based on best practices from leading-edge implementation experience and ongoing research and development. ACM equips Aurigo’s consultants with the tools and techniques they need to deliver comprehensive solutions. ACM adopts many of the principles and best practices of the Agile philosophy while retaining the structure and project management oversight required for success.



Aurigo’s Project Management Methodology

Many of the most valuable Agile Principles are reflected in the ACM methodology, including:

- Delivering working software frequently
- Providing continuous attention to technical excellence and good design
- Valuing customer collaboration
- Regularly identifying risks and developing mitigation plans
- Performing integration and regression testing
- Integrating earlier

Aurigo proposes a hybrid method of delivering services to the Agency. Normally, key Aurigo personnel will be onsite at the Agency’s offices to manage and perform important project tasks that require interaction with the Agency’s Project Manager and Subject Matter Experts (“SMEs”). If required, due to the restrictions in place with the COVID-19 pandemic, Aurigo personnel will be interfacing with the Agency’s personnel via teleconference and other remote work options whenever possible. Aurigo has enhanced its existing processes by working with its customers to enable remote process discovery and project

management. Other Aurigo personnel who perform tasks to deliver the Agency’s solution will work from Aurigo’s offices, and the Aurigo Project Manager will directly manage them.

Aurigo’s proposed Project Plan depends upon the Agency’s cooperation in following the agreed-upon project plan. Aurigo’s implementation plan is based on years of implementing projects for customers like the Agency. ACM defines the following project phases for a successful deployment. If an overall deployment is divided into separate production releases, then phases 2 through 6 are independently repeated for each release.

Project Delivery Phases		
Phase 1	Project Planning	Develop Requirement Traceability Matrix (RTM), project schedule, change control plan, set up a project SharePoint site
Phase 2	Business Process Mapping (BPM) and Business Requirement Elaboration (BRE)	Business workshops will be conducted, create Functional Specification RACI, draft Functional and Technical Specifications, the project team will receive basic Masterworks training
Phase 3	Solution Configuration	Configure Masterworks Cloud to meet the requirements in the Requirements Traceability Matrix and per approved Functional and Technical Specifications
Phase 4	Solution Testing	The solution testing phase incorporates a set of testing that will include the following: <ul style="list-style-type: none"> • Integration Testing (if any) • User Acceptance Testing
Phase 5	Training	Develop and deliver System Administrator and Train-the-Trainer training. The Agency will be responsible for delivering end-user training to the remaining end users
Phase 6	Go-Live	Masterworks Cloud production system is available for The Agency’s use. System Acceptance and Sign-off
Phase 7	Closeout	Full deployment and handover to Customer Success team

Each of the phases mentioned above is detailed below:

Project Planning

The project planning phase typically starts 4-6 weeks after the contract execution. During the project planning phase, Aurigo will work with the designated members of the Agency’s team to plan the overall approach to the project. This phase also develops the overall governance approach for the project, the testing approach, the training approach, etc., that will guide the team throughout the project. This phase of the project is part of Aurigo’s hybrid agile approach defined above. It provides many traditional aspects

of project management that customer organizations require. All processes that will be used throughout the project are defined at this time. Please see above how Aurigo expects the implementation project will be run.

Business Process Mapping and Business Requirement Elaboration

During the business process mapping phase, Aurigo will work with designated members of the Agency's team (the SMEs) to further refine the needs and requirements specified in the scope of services. The Agency and Aurigo may jointly decide to modify and re-engineer some of the existing processes followed by the Agency. Any re-engineering will be based on the better functionality and ease-of-use features available in the Aurigo Masterworks Cloud solution and the industry best practices proposed by Aurigo consultants. As mentioned above, this project phase is part of the hybrid agile approach that Aurigo utilizes to deliver projects to its customers. In a pure agile environment, there would be no independent Business Process Mapping phase. To ensure that the requirements are well understood and to reduce risks to the project, Aurigo will elaborate approximately 70% of the requirements upfront before the configuration process commences. Part of the business process mapping will include defining how existing processes are configured in Masterworks for the Agency.

Solution Configuration

The Solution Configuration phase is intended for Aurigo to configure and then deploy the new products/features specified in the final set of requirements elaborated during the Business Process Mapping workshops. Aurigo will configure the software to meet the needs and processes documented in functional and technical specifications during this phase.

Aurigo delivers its solutions iteratively throughout this phase. Aurigo's normal iteration cadence is three weeks. At the beginning of each iteration, Aurigo will identify the requirements to be delivered, configure the solution, and deliver an updated software environment for the Agency to access. The intent of the iteration is not to do a final system acceptance or testing. Rather, the goal is to garner feedback on the features and identify gaps in the delivered capabilities to the intended needs as documented in functional and technical specifications. If new requirements are identified during an iteration, the potential changes to the project's scope will be openly discussed with the Agency and, if necessary, will be taken through a change control process. Aurigo will continue to iterate through the solution configuration phase until all the requirements outlined in the scope of services are delivered satisfactorily to the Agency.

Quality Assurance

Quality Assurance is not a self-contained phase of the project. It occurs throughout the project's lifecycle to ensure the work performed meets the needs of the Agency. The quality management approach for implementing Masterworks will ensure quality is planned to assess the process and product quality. The project will use project quality measurement reports as a tool to communicate any quality risks or issues that arise.

The following quality management approach elements are included in this approach:

- **Quality Planning** – Includes quality standards, identifying quality metrics, creating quality checklists, and conducting problem remediation activities.
- **Quality Assurance (QA)** – Used to manage and deliver the project’s product or service effectively and fulfill the quality requirements. An iterative quality process will be used throughout the project lifecycle To ensure quality.
- **Quality Control (QC)** – Focused on the products and deliverables of the project. It is the process of monitoring project deliverables to verify that the deliverables are of acceptable quality, complete, and correct. It includes the inspection, analysis, and actions required to ensure quality output.
- Tools and software used to support quality management include but are not limited to:
 - Software Quality Tools
 - Microsoft Office Tools (Project, Word, Excel, SharePoint, and PowerPoint)
 - VSTS – Visual Studio Team System
 - Solution creation, development, and management
 - Test Management Repository
 - Project Management Tools (not limited to)
 - Project Schedule
 - Project Site
 - Project Calendar
 - Action Items
 - Feedback Log
 - Risk Register
 - Issue Log
 - Decision Log
 - RTM
- **Problem reporting and resolution plan** – The project SharePoint site will contain the reporting data and the reports produced as part of quality activities and reviews. The records will be maintained through the implementation lifecycle of the project.

Solution Testing

The Agency will perform the solution testing phase of the project to assess the delivered solution before moving it into production. During UAT, the Agency will review all solution deliverables submitted by Aurigo. The testing should provide end-to-end business scenario testing from an end-user perspective. The goal of UAT is to verify that the business processes defined during the BPM phase of the project, plus the requirements documented in approved functional or technical specifications, correctly convey what the Agency expects from the solution. Any deviations from the defined requirements found at this stage will trigger a change control process.

Integrations with the Agency’s existing third-party systems and to-be-determined third-party systems will also be rigorously tested at this point in the project. Aurigo aims to develop a seamless Enterprise experience for the Agency as it moves forward with its new Project Management Software Solution.

Data migration will also be tested during this period with a copy of the data to be migrated. Testing will determine the success of all data migrated to Masterworks and determine if edge cases are handled appropriately. Data migration will be finalized and performed immediately before the system go-live to ensure the most up-to-date data is brought over from the current system into Masterworks.

Training

Aurigo recognizes the need for solid end-user training to support effective solution adoption. Aurigo's training approach provides a framework that uses effective methods and best practices for initial and sustainable training. Early engagement of key users, training geared towards different learner groups, and continued access to training material are vital in ensuring training success and adequately preparing the end-users. Aurigo has extensive experience delivering training to complex organizations of all sizes with end-users ranging from internal staff, local agency staff, consultants, contractors, and system administrators. Aurigo's training approach incorporates the best practices learned while delivering the Masterworks solution to its large and diverse customer base.

Aurigo has carefully reviewed the Agency's RFQ requirements and proposes the following training services:

1. Aurigo Delivered Training Sessions:
 - a. Project Team Training
 - b. System Administrator Training
 - c. Train-the-Trainer Training
2. Training Materials

Aurigo Delivered Training Sessions

For the Agency's ROW Management System implementation, Aurigo proposes to deliver three (3) types of training: (i) Project Team Training, (ii) Systems Administrator Training and, (ii) Train-the-Trainer Training. All training sessions are process-based for each user group.

a. Project Team Training

Aurigo proposes a one-time Virtual (Online) training for up to fifteen (15) Project Team members identified by the Agency. The purpose of the training is to get the Agency's Project Team members accustomed to Masterworks' functionality. Aurigo will provide up to sixteen (16) hours of training, conducted over two (2) consecutive days, in a demo-style walkthrough session during the business process mapping (BPM) phase or just before the configuration phase of the implementation project. This training aims to provide the Agency project team with the necessary information to participate in the business process mapping workshops, sprint reviews, and testing activities. The Project Team Training is informal and will not include any training material or documentation. Standard out-of-the-box Online Help accessible from within the system will be available for users. The training will be conducted by Aurigo's Project Manager and Business Analyst.

b. System Administrator Training

Aurigo proposes to deliver a one-time Virtual (Online) Instructor-Led Training (VILT) for up to ten (10) users as identified by the Agency. The duration of the System Administrator Training course is approximately eight (8) hours conducted during a single day. The training is designed to train the administrative and support staff on system maintenance activities. Users will be trained to effectively manage the system's user accounts, roles and permissions, and other security settings. The System Administrators will also be trained to make basic system configurations such as creating dashboards and configuring/maintaining Library data. Aurigo will provide an electronic copy of the standard training presentation slide deck and the Online Help for System Administrators. The help manual will be available to users online from within the system.

c. Train-the-Trainer Training (TTT)

Aurigo proposes a one-time Virtual/Onsite Instructor-Led Training (ILT) for up to a maximum of fifteen (15) users to be trained on how to use the system's functionality and train other users on how to use the system. The Train-the-Trainer (TTT) training course duration is sixteen (16) hours conducted over two (2) consecutive days. Aurigo will train key users identified by the Agency on the system functionality, as configured for the Agency, in the same style as an end-user will learn. The Agency's trained personnel will, in turn, train the Agency end users. Aurigo will support the Agency's trainers by providing access to the training environment for their training sessions. Using this approach, the Agency will build a talented pool of users, which benefits the new employees and provides continuous support for the Agency in the long run. Aurigo will provide an electronic copy of the end-user training presentation slide deck and the Participant Guide (for hands-on exercises) that Aurigo uses to deliver end-user training. Aurigo will leverage its standard training materials to align the Agency's training material to the new PMIS system configured for the Agency. Note: TTT participants will be required to attend the entire four-day course and not opt-out of specific classes.

Training Material and Documentation

Aurigo will provide the following electronic/soft copies of training material and user documentation as part of the training delivery. The Agency may print and distribute the material to the Agency's users who attend the training.

Training Material:

1. Microsoft PowerPoint presentation slide deck aligned with the training course (for Train-the-Trainer and System Administrator training)
2. Participant Guide (steps for hands-on exercise during training) in PDF/word format aligned with the training course (only for Train-the-Trainer)

Note: Aurigo will leverage standard training material and modify it to match the Agency's configuration.

System Documentation:

1. Standard out-of-the-box Online Help is accessible from within the configured system, covering end-user and system administrative functionality.

2. **Other Support Documentation: Aurigo will provide functional specifications documentation configured for the Agency and standard out-of-the-box copy of its Application Programming Interfaces (API) documentation.**

Aurigo will share the recordings of the virtual training sessions with the Agency. If the Agency desires additional training videos, Aurigo will require additional discussions to finalize the scope and format to determine the potential costs for the Agency.

Go-Live and Closeout

Go-Live typically has no direct activities. This milestone denotes acceptance of the deployed solution, entry into the warranty period, and production use of the Masterworks solution. The warranty period is 30 calendar days starting from the date of Go-Live.

Training Details

The Vendor shall describe a strategy for project team training and end user training that appropriately integrates with the Vendor's methodology and timeline. Although the WVDOT intends to deliver most of the end user training sessions, the Vendor must provide training to the WVDOT project team, develop the end user training materials, conduct the train-the-trainer sessions, and provide support to WVDOT as they deliver the end user training session. This section is expected to address all types of required training, including but not limited to the following:

- Project team training to be provided to the WVDOT's core project team upon project initiation and for conference room pilots (or similar activities) to ensure the WVDOT project team has a baseline understanding of the Vendor's proposed software solution in order to be able to actively participate in project activities;
- Technical, security, and operations training to support development, implementation, and production;
- End user training to support end user training, implementation, and ongoing needs;
- Deeper knowledge transfer to a core group of functional, administrative, programming, security, and other technical and operations personnel to support independent operations capability before the Vendor departs; and
- Training Guides, User Guides, and Quick Reference Guides.

Aurigo recognizes the need for solid user training to support effective solution adoption. Aurigo's training approach provides a framework using effective methods and best practices for initial and sustainable training. Early engagement of key users, training geared towards different learner groups, and continued access to training material ensure training success. Aurigo has extensive experience delivering training to medium to large and complex organizations with end-users ranging from internal staff, local agency staff, consultants, contractors, system administrators, and support staff. Aurigo's training approach incorporates the best practices learned while delivering the Aurigo Masterworks solution to its very large and diverse customer base.

Aurigo has reviewed the training requirements in the RFP and proposes the following Training services. The proposed training address the following training deliverables: Project Team Training; Comprehensive Training Plan; Training Curriculum; End User Training; Technical and Operation Personnel Training; Training Materials; and Software Education Sessions.

Project Team Training:

For the Agency's technical staff and subject matter experts involved in implementing the solution, Aurigo will provide the core project team training at appropriate times aligned with the project implementation phases. During the business process mapping (BPM) phase or just before the configuration phase, Aurigo will provide the initial project team with Masterworks (product) Overview sessions to ensure Agency project team have a baseline understanding of the base system functionality to participate in the implementation activities. These sessions will be conducted in short, informal demo sessions by Aurigo's project team members. Aurigo standard out-of-the-box Online Help will be during this phase. During the Configuration Phase (during Sprint Reviews), the Aurigo project team will provide Sprint demo sessions to demonstrate the Sprint Release features for each sprint. These sessions aim to provide the Agency's project team with the necessary information to review the sprint configuration and perform Sprint testing. Sprint release notes and functional specifications will be available to users for these sessions. During the User Acceptance Testing (UAT) phase, Aurigo will conduct UAT overview sessions for the UAT participants to effectively participate in the UAT testing before the User Acceptance test. This training session will be conducted in a demo-style walk-through of the fully configured system in a UAT environment. This training session aims to provide a full walk-through of the configured system end-to-end and include instructions on performing and recording UAT test results.

Note: The Project Team Training scope defined above is also referred to as "Training Course Pilot for SMEs" in the "CRFP No. DOT2200000002 Cost-Price Proposal".

Comprehensive Training Plan:

Aurigo understands that a robust **Training Plan** is instrumental in the success of any training program. Aurigo will develop a comprehensive training plan for the training program's design, development, and implementation. The Training Plan will be developed during the configuration phase once the project team sufficiently understands the training needs. The Training Plan comprises a comprehensive description of the training sessions, training approach, training development and delivery methodology, and training material and end-user documentation development. It also includes details about the Training environments, including an approach for developing sample training data. The training plan will be developed in collaboration with Agency and require the involvement of Agency training personnel. Once approved, the Training Plan will be a living document and updated to align with the implementation. The Training Plan will include:

- Training Team Roles & Responsibilities (Aurigo and City)
- Training Scope
- Training Development and Delivery Methodology
- Training Materials and Documentation
- Training Environment
- Training Logistics
- Training Schedule (broad timelines)

Training Curriculum:

Aurigo will develop and document the training curriculum for the formal user training sessions such as the End User Training (Train-the-Trainer approach) and System Administrator training sessions described below. The course curriculum will be aligned with the system as configured for Agency. Training Curriculum design will be process-based and developed for the two types of user groups: End Users (Train-the-Trainer approach) and System Administrators.

End-User Training:

Aurigo understands that Agency expects Aurigo to provide Train-the-Trainer training and support for the Agency-led end-user training. Aurigo's proposal for the Train-the-Trainer Training and Support for Agency-led end-user training is described below.

a. Aurigo led Train-the-Trainer (TTT) Training:

Aurigo proposes a one-time Virtual Instructor-Led (online) training session (VILT) for up to a maximum of fifteen (15) Agency identified trainers/users in the Train-the-trainer approach. In this approach, participants will be formally trained on using the system's functionality, as configured for the [Client Short Name]. The Train-the-Trainer (TTT) training course duration is up to forty-eight (48) hours, comprising training on end-user functionality, demo by trainer, guide practice/hands-on practice sessions. This includes best practices, trainer tips and tricks, and setting up the training environment with training data. On completion of the TTT sessions, the Agency's trained personnel will, in turn, train the Agency end-users. Aurigo recommends that core project team members be assigned to TTT sessions for this program to be most effective as these members have been part of the Project Team Training sessions. At a minimum, Aurigo recommends that the TTT participants be assigned to the UAT testing to be better prepared to be effective trainers. Note: TTT participants will be required to attend the entire course and not opt-out of specific classes.

b. Support for Agency-led End-user Training:

Aurigo will provide offline support before and during Agency-led end-user training. The scope of the support by Aurigo includes the availability of the training environment (same as the TTT environment) and support with questions and clarifications. Aurigo will provide Back up, restore, and troubleshooting assistance in the training environment as Agency prepares for the end-user training. For this proposal, Aurigo assumes Agency will require offline support for up to 30 calendar days after the Train-the-Trainer. training

Technical and Operation Personnel Training, Software Education Sessions:

Aurigo is proposing a Cloud-based solution. There will be no training on system startup, backup and recovery, job scheduling, or disaster recovery procedures. Aurigo will train Agency personnel to equip them with system administration, system maintenance, configuration tool kit, and ad hoc reporting knowledge. These training sessions are broadly grouped into what Aurigo refers to as "System Administrator Training" described below.

a. System Administrator Training:

Aurigo proposes a one-time virtual Instructor-Led (online) training session (VILT) for up to a maximum of ten (15) Agency system administrators/technical staff identified by Agency. The System Administrator training is intended to pass along deeper knowledge about Masterworks' technical, security, and operational functions. The system administrator course duration is up to eight (8) hours. The participants will learn user and access permission administration, system library and master data configuration and maintenance, workflow configuration, ad-hoc reporting, and other maintenance activities. The users who receive this training will be in an excellent position to maintain the system and users after the solution goes live.

For this cost proposal, Aurigo has assumed all training will be delivered virtually(online) using the Virtual Instructor-Led Training (VILT) approach delivered using tools such as Microsoft Teams or Zoom. If it is determined at a later time that onsite travel is required, Travel and Logistics will be billed on actuals.

Since Aurigo is proposing Virtual training sessions via Microsoft Teams/Zoom, Aurigo will share the recordings of the virtual training sessions on Agency request. If the Agency desires additional training

videos or CBT, Aurigo will require additional discussions to finalize the scope, format, and costs to the Agency.

Training Material:

Aurigo will develop and provide training material aligned with the formal user training sessions, such as End User Training (Train-the-Trainer approach) and System Administrator training described above. Aurigo typically leverages the standard material and modifies it to match the Agency configuration. All training material development typically starts at the end of the Configuration phase and is completed before Train-the-trainer. All training material will be maintained to be current by Aurigo until final acceptance, after which Training Material will be handed over as part of knowledge transfer to be maintained by Agency

Aurigo will provide the following training materials for End User Training (Train-the-Trainer approach) and System Administrator training:

Training Material for System Administrator Training: Microsoft PowerPoint presentation slide deck, Participant Guide (MS Word/PDF) for hands-on activities

Training Material for Train-the-Trainer End-users Training: Microsoft PowerPoint presentation slide deck, Participant Guide (MS Word/PDF) for hands-on activities, Instructor Guide (MS Word/PDF) to aid trainers with the training presentation, participant guide, and training environment while delivering end-user training.

Note:

Aurigo understands that Agency may customize and re-purpose the training materials provided by Aurigo as they prepare to deliver End User Training.

Aurigo cost proposal includes electronic copies of Training material and does not include hard copies.

a. The Vendor must provide a detailed training plan for the analysis, design, implementation, and evaluation of a comprehensive training program for the VPS. The Training Plan, which is to be updated on a regular basis and delineate training goals and objectives, must serve all levels of the project, including the project team, system users, trainers, and technical staff. The Training Plan must be based on a comprehensive training needs assessment conducted by the Vendor and must also describe the types of training to be employed to meet identified needs. Computer-based training (CBT) may be utilized where appropriate for specific training classes with prior approval from the WVDOT, provided that all CBT is expected to be audio-video. Exceptions to the required audio-video CBT format may be approved by the WVDOT on a case-by-case basis.

A Sample Training Plan is provided on the following seven (7) pages.

SAMPLE TRAINING PLAN

Cover Page sample:



Version Control Page sample:

Version Control

VERSION	DATE	AUTHOR	DESCRIPTION
V 0.0	7/2/2021	Aurigo Training & Documentation Team	Draft
V 1.0			
V 2.0			
V 3.0			

Table of Contents Page sample:

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1 Introduction

This document outlines the Training Plan for the [Project Name] project and will serve as the primary guide for planning, managing, and delivering all training-related activities.

The goal of the Training Plan is to provide a framework for training the users of the [Project Name] project using effective methods and best practices. This document describes the methodology and approach to training the [Client Name] personnel on the Aurigo Masterworks solution. The Training Plan will address the approach for all phases of the [Project Name] implementation. This will be a living document through the project life cycle and includes references to training-related documents maintained outside this document. All training-related activities for the [Project Name] project will be conducted as outlined in the approved Training Plan.

2 Training Roles and Responsibilities

This section describes the roles and responsibilities of Aurigo and [Client Name] for training activities.

Roles and Responsibilities			
	Activity	Aurigo	[Client Name]
1	Develop the Training Plan outlining the methodology and approach for [ProjectName] training. Update and maintain the Training Plan with support by [Client Name].	✓	✓ (support)
2	Plan all training resource requirements for Aurigo-delivered training sessions. Coordinate with [Client Name] Training lead/coordinator on the logistics requirements arranged by [Client Name].	✓	✓ (support)
3	Provide all training resources and logistics requirements for Virtual Instructor-led training: virtual platform, computers with network connectivity for all participants, etc.		✓
4	Coordinate and communicate with participants per training delivery schedule. For example, send training meeting invites, track attendance, conduct feedback surveys (if required), etc.		✓
5	Create training course materials comprising (as applicable): <ul style="list-style-type: none"> • Microsoft PowerPoint slides • Participant Guides 	✓	
6	Create Online Help documentation for system functionality (end-user and system administration).	✓	

7	Deliver Aurigo-led training sessions such as TTT and System Administration training by Aurigo trainer Live Support: [Client Name] BA/SME, who participated in all relevant Business Process Mapping sessions during implementation, should participate in training delivery to provide business process and context.	✓	✓ (support)
8	Deliver [Client Name]-led training. Offline Support: Aurigo will support the [Client Name] by providing a stable training environment and resolving issues in the training environment.	✓ (offline support)	✓
9	Provide Training Environment to deliver training with base data such as libraries and sample data.	✓	
10	Provide and assist with configuring sample training data for the training environment.		✓
11	Print and distribute training materials, as required, for participants during system administrator or end-user training.		✓

3 Training Scope

This section outlines the training plans and schedules with the following assumptions:

- 1) Aurigo led training sessions delivered as virtual instructor-led training.
- 2) [Client Name] BA/SME to be present during training sessions.
- 3) [Client Name] will participate in all reviews and respond in a timely fashion.

3.1 Training Materials and Documentation

Develop user training materials and online help documentation, leveraging pre-existing materials, where appropriate.

3.2 Training Delivery for Aurigo-led Training Sessions

Deliver the following training programs:

- a. System Administration Training
- b. Train-the-Trainer Training

Aurigo personnel will deliver virtual instructor-led classroom training to [Client Name] personnel. The coverage of training is limited to the functionality configured in the [Project Name] system. The training scope includes integration touchpoints but does not include training on any systems integrated with [Project Name].

3.3 Support for [Client Name]-led Training Sessions

Provide technical support during the End User Training (EUT) led by [Client Name] trainers. Aurigo will support the EUT sessions by providing a Training Environment and supporting [Client Name] trainers with any issues and training-related questions.

4 Training Development and Delivery Methodology

This section will describe the overall training program development and delivery methodology. It describes the learner types for the training programs and the approach and strategy for each program.

4.1 Learner Type

Training Program	Learner Type	# Learners Approx.
Project Team - [Client Name]	[Project Name] Implementation Team Members	[# TBD by Client]
Train-the-Trainer	[Project Name] Trainers	Up to 15
System Administration Training	[Project Name] System Administrators	Up to 15

4.2 Approach and Strategy

This section describes the approach and strategy for the various training programs identified in the Training Scope section. The Aurigo-led training and support for [Client Name]-led training will be described in detail.

4.2.1 Aurigo-led Training

Project Team Training:

- The scope of training is determined by the scope of the functionality being configured for [ClientName].
- The training is for [ClientName] technical staff and subject matter experts involved in implementing the solution to get them accustomed to Masterworks. The training aims to provide the City’s project team with the necessary information to participate in the business process mapping workshops, sprint reviews, and testing activities.
- The training will be conducted in short, informal sessions by Aurigo’s project team members for up to ten (10) or more [ClientName] Project Team members at a time as identified by the [ClientName]. Aurigo will provide an average of sixteen (16) hours of training in demo-style walkthrough sessions during the business process mapping (BPM) phase or just before the configuration phase of the implementation project.
- The Project Team Training is informal and will not include any training material or documentation. Standard out-of-the-box Online Help accessible from within the system will be available for users.

Training will be delivered by an Aurigo expert, with live support by [Client Name] SME/BA. Train-the-Trainer (TTT) Training:

- The scope of training is determined by the scope of the functionality configured for [Client Name].
- The training is intended to train the [Client Name] trainers on the full system functionality.
- This training will be delivered in a TTT approach, with Aurigo teaching the [Client Name] trainers and [Client Name] trainers teaching the end-users during end-user training.
- Training will be delivered in a virtual instructor-led environment with hands-on practice activities to prepare [Client Name] trainers adequately.
- Training will be delivered by an Aurigo expert, with live support by [Client Name] SME/BA.

Note: TTT participants must have participated in Sprint Testing and User Acceptance Testing to prepare them to learn effectively during TTT and deliver effective end-user training.

System Administrator Training:

- a. The scope of training is determined by the scope of the functionality configured for [Client Name].
- b. The training is intended to enable the [Client Name] system administration staff to successfully manage system administration functions, such as user and role management, library management, permissions, and other configurations.
- c. Training will be delivered in a virtual instructor-led environment with hands-on practice activities to prepare [Client Name] administrative staff adequately.
- d. An Aurigo Masterworks expert will deliver training.

4.2.2 Support for [Client Name]-led Training

Aurigo will provide technical support for the [Client Name]-led end-user training by providing a training environment (same as TTT), being available offline to address environmental issues, and clarifying training-related questions.

4.3 Delivery Methodology

This section describes the delivery methodology for various training programs identified in the scope of training. The primary method/mode of training delivery will be instructor-led training using a virtual platform. Recording the training session is at [Client Name]’s discretion, but it is recommended.

Training	Delivery Method	Duration & Frequency	Delivered By / Trainer
System Administrator Training	<ul style="list-style-type: none"> ▪ Instructor-led virtual session with hands-on activities 	Approximately 8 hours total	Aurigo
Train-the-Trainer Training	<ul style="list-style-type: none"> ▪ Instructor-led virtual session with hands-on activities 	Approximately 24-32 hours total	Aurigo expert with support from [Client Name] SME/BA
Project Team Training	<ul style="list-style-type: none"> ▪ Aurigo Team-led training ▪ Demo-style walkthrough sessions 	Approximately 8-16 hours total <i>(duration is varied based on solution complexity)</i>	<ul style="list-style-type: none"> ▪ Aurigo Implementation Team Members (PM, BA, Specialists)

4.4 Course Development Methodology

This section describes the approach to developing the curriculum and course for the [Project Name] system. The [Client Name] training provided by Aurigo leverages standard Masterworks training materials and will be aligned with the system configured for [Project Name].

5 Training Material & Documentation

5.1 Training Material and Documentation for System Administrator Training:

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

1. Microsoft PowerPoint presentation slide deck
2. System Administrator documentation available as Online Help for reference

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

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

1. Microsoft PowerPoint presentation slide deck aligned with the training course
2. Participant Guide aligned with the training course
3. End-user documentation available as Online Help for reference

Note/Assumptions:

- The Online Help is a single help file accessible from within the system and will include both the End-User and System Administration documentation.
- [Client Name] may deliver end-user training with the TTT training material provided by Aurigo or modify as required to deliver end-user training.
- Any additional training identified during implementation that increases the scope or duration of the training course will be charged at Aurigo’s standard course development and training rates.
- The training course does not include training on the systems that have been integrated with Masterworks.

5.3 Material Print/Hard Copies:

Aurigo will provide soft copies of all the training materials. [Client Name] will be responsible for printing required hard copies and distribute them to participants.

6 Training Environment

This section describes the approach for Training Environment configuration and data set up.

Training Environment	<ul style="list-style-type: none"> ▪ Aurigo will provide a training environment for training delivery. ▪ The initial training sample data will be pre-configured and will include samples to demonstrate functionality by trainers and all necessary library data. ▪ [Client Name] will assist Aurigo in configuring sample training data in the training environment. ▪ The training environment will not be updated mid-way during training for end-users unless show-stopper issues (no workaround) are encountered. This ensures continuity for the learners.
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7 Training Logistics

This section describes the training logistics such as facility requirements, equipment requirements, and other requirements.

- Virtual instructor-led training platform, computers, and network connectivity will be provided by [Client Name].
- Facilities, classrooms, equipment, computers, and network connectivity for instructor-led classroom training will be provided by [Client Name].
- [Client Name] must identify and provide to Aurigo a list of training logistics, including the list of attendee names, dates and times planned, and equipment available for training delivered by

Training Plan for [Project Name]



Aurigo. [Client Name] will be responsible for coordination, communication, and tracking attendance for all the Aurigo-led training sessions.

7.1 Facility Requirements

All Aurigo-delivered training will be provided as virtual instructor-led training.

Aurigo Delivered Training:

- [Client Name] will be responsible for:
 - All training logistics and coordination with [Client Name] personnel and Aurigo Training Team
 - Coordination and invitations to participants for all training classes
 - Ensuring virtual platform is supported for all learners
 - Ensuring operational user, learner equipment, computers, and network access
 - Informing Aurigo of training logistics at least [#] weeks before the training starts

8 Training Schedule

Aurigo will work with [Client Name] to align all the training activities with the overall [Project Name] program schedule. The training tasks will be updated and tracked in the overall [Project Name] schedule.

b. Training Curriculum - The Vendor is expected to identify, develop, and document the training curriculum that will be used to educate and train WVDOT staff in the development, configuration, implementation, maintenance, support, and use of the VPS.

Please see the Sample Training Plan provided above to learn how Aurigo will work with the Agency's SMEs to develop the Training Curriculum for the Agency.

c. End User Training - A train-the-trainer classroom approach is expected to be pursued by the Vendor to assist the WVDOT in training employees who will be using the VPS. As part of this effort, the Vendor must provide:

- Classroom materials to support the classroom training effort that have been customized to address specific software configuration and customizations made as part of the VPS project;
- Training for WVDOT trainer candidates that includes:
 - o Best practices on training for the proposed software,
 - o Practice training sessions,
 - o The business processes and system functionality on which they are expected to provide training, and
 - o How to customize the training materials and set-up specific reference data in the training environment;
- A stable, tested training environment pre-loaded with representative converted reference and historical data that can become a starting point for creating training materials (including screen prints showing user actions and processing outcomes). Note: For training purposes, the WVDOT expects to take responsibility for entering representative reference data that is impractical or impossible to convert automatically;
- Support to WVDOT trainers prior to and during training; and
- Back up, restore, and troubleshooting assistance in the training environment as materials are prepared and customized and as end user training proceeds.

See Aurigo's response above.

d. Technical and Operations Personnel Training - The Vendor must supply classroom and substantial hands-on training to ensure that WVDOT personnel have the necessary skills to operate and maintain the system once in production. For solutions implemented in an on-premise model, it is assumed that WVDOT or WVDOT personnel will perform all operations and system administrative functions with assistance as needed by the Vendor when live operations commence. Such training must include systems operations, including system startup, backup and recovery, job scheduling, troubleshooting, and any other tasks necessary to operate the system; training on any components of the operating environment that are new to the WVDOT; as well as training on the use of the Vendor's development tools, system management, and application administration tools.

See Aurigo's response above.

e. Software Education Sessions - The Vendor must provide education sessions that describe:

- The software configuration;
- Organization of software libraries;
- System operation procedures for use during the Project;
- System administration responsibilities, log on/log off procedures, workflow, and security; and
- Other topics necessary to educate WVDOT personnel on "system housekeeping" during the project.

All training is expected to be provided at training facilities provided by the WVDOT. Deliverables:

- Project Team Training;
- Comprehensive Training Plan;
- Training Curriculum;
- End User Training;
- Technical and Operation Personnel Training;
- Training Materials; and
- Software Education Sessions.

See Aurigo's response above.

f. Documentation - The Vendor is expected to describe its proposed approach for developing and maintaining technical and end user documentation, systems and operational documentation, system configuration documentation, and procedural documentation, including manuals, quick reference guides, tutorials, online help, short video clips and other techniques as appropriate. The Vendor shall also describe the approach used to keep technical and user documentation current throughout the project, and throughout the life of the system. The Vendor must develop and provide to the WVDOT all system documentation at the time the system is presented for final acceptance. The Vendor must provide complete, well-written, and accurate technical, system, and user documentation. The Vendor also must provide complete source code for any custom-developed work products. All documentation must be available in both paper and electronic form (in a format acceptable to the WVDOT). The documentation must be updated throughout the course of the Project. The documentation must include, at least, the items described in the following documentation sub-sections.

Aurigo proposes the following documentation be provided to the Agency at various phases throughout the project implementation: Security Administrators Guide; User Documentation (and updates); Workflow Administration Guide (and updates); Online Help; Data Element Dictionary; and Entity Relationship Diagrams. Described below is the approach Aurigo will take to develop and maintain the documentation.

Data Element Dictionary; and Entity-Relationship Diagrams:

Aurigo will provide functional specification documentation in MS Word format, which will include the data element dictionary. It will be developed incrementally during the Business Process Mapping phase and updated as needed to capture changes before the Agency's final acceptance. Any changes to the system post Go-Live will be captured in the relevant technical documentation and provided at the same time as the feature release or system update. Aurigo will also provide the Entity Relationship Diagrams as requested for the Agency's reference.

Security Administrators Guide; User Documentation; Workflow Administration Guide; Online Help:

Aurigo will provide context-sensitive Online Help that will be accessible from within the configured system. The approach for providing Online Help documentation is to leverage Aurigo's standard out-of-the-box product documentation and modify it to match the system as configured for the Agency. This approach ensures that the Agency has the most up-to-date documentation. The Online Help includes System Administrator Documentation and End User Documentation. The System Administrator documentation includes security administration, user and role permission administration, workFlow management, forms management, library management, and other administrative functions to manage and maintain the system effectively. The scope of documentation provided by Aurigo will be for the system as configured for the Agency. It will not include policies or procedures not configured in the system. Aurigo will provide the fully updated Online Help file before final acceptance. Note: The Online Help is electronic documentation accessible from within the system's Help menu. Upon the Agency's request, Aurigo can export the Online Help content into a PDF or MS Word file and provide the Agency with a copy for its reference. The editing of the Online Help typically starts towards the end of the configuration phase of the implementation project. It is completed before Train-the-Trainer and System Administrator training sessions. The Online Help will be maintained throughout the implementation project.

Electronic copies of the Online Help:

Aurigo's proposal only includes electronic copies of documentation. If the Agency requires hard-copies, Aurigo will work with the Agency's project manager to determine the number of hard-copies needed and

the associated costs. Alternately, the Agency can reproduce and print any number of copies as required from the PDF/MS Word files provided by Aurigo.

The Process for updating and maintaining the training Content is addressed in the responses to the training requirement sections above.

Source files for all content/documentation:

Aurigo will provide the source files for all documentation and training material it creates. See a list of the source files below:

Training Material: Presentations in Microsoft PowerPoint (.pptx) slides, Participant Guides in MS Word format, and Instructor Guide in MS Word format

Online Help: Source files are developed using Content Management Tool EasyDita and published as HTML files. Aurigo can share both the EasyDita source content and HTML content. Aurigo can also export the Online Help content to Acrobat PDF or MS Word files on request

f.1. Security Administrators Guide - The Vendor must prepare a comprehensive security guide that combines general reference information with WVDOT-specific procedures to assist security administrators in performing their duties.

See Aurigo's consolidated response concerning documentation above.

f.2. Workflow Administration Guide - The management and administration of workflow software is expected to be a required duty for selected WVDOT personnel. The Vendor must produce a Workflow Administration Guide that describes the duties of workflow administrators. The Guide must include: • Coverage of policies and procedures for workflow setup; • User setup; • Work group setup; • Workflow rules setup; • Provisions for establishing alternates for absent users; and • Archiving and reporting.

See Aurigo's consolidated response concerning documentation above.

f.3. Online Help - The Vendor shall describe the online help functions delivered with the proposed software, and the process available, if any, to customize the online help to support the software as configured and customized (if necessary) to meet the WVDOT's business needs. Deliverables: • Security Administrators Guide (and updates); • User Documentation (and updates); • Workflow Administration Guide (and updates); • Online Help; • Data Element Dictionary; and • Entity-Relationship Diagrams.

See Aurigo's consolidated response concerning documentation above.

g. Knowledge Transfer - The Vendor is expected to describe its knowledge transfer strategy to be utilized throughout the project to ensure that WVDOT employees are prepared to operate and maintain the system at go-live. The response shall describe the specific procedures that the Vendor expects to undertake to mentor WVDOT staff and ensure adequate WVDOT experience and knowledge of the system by the time of transition. The Vendor is expected to also describe its approach to transferring operation of the VPS to the WVDOT (for implementations under an on-premise model). The description shall include all elements necessary to transfer a fully functioning system, including software, hardware, data, and processes. It is important to the WVDOT that, as a part of the Knowledge Transfer Plan, an effective mentoring program is developed for key WVDOT staff. The WVDOT is interested in innovative ideas from Vendors concerning how the mentoring vision can be practically fulfilled.

Aurigo's knowledge transfer strategy incorporates the best practices learned while delivering Aurigo Masterworks Cloud to its wide range of customers. Aurigo's delivery methodology, ACM, ensures knowledge transfer is not just an end-of-phase activity. It involves and engages the Agency throughout

the project lifecycle. Aurigo's strategy is to involve the key Agency personnel early on in project activities, including Business Process Mapping, configuration activities, Sprint testing, User Acceptance Testing, and Training that will continually engage and prepare them for the new system.

Knowledge Transfer Plan:

Aurigo will work with the Agency to develop a comprehensive knowledge transfer plan that describes the activities, the personnel involved, and when knowledge transfer will occur in the project lifecycle. Aurigo understands that knowledge transfer is a project activity involving planning, incremental mentoring, and learning which is critical for the effective hand-over at the end of the project. The Agency's project team and key personnel will be involved in multiple activities throughout the project. Aurigo has highlighted some key activities that will formally occur as part of Aurigo proposed knowledge transfer plan:

Project Team Masterworks Overview: Aurigo will provide the Agency project team with an overview of the Masterworks (out of the box) system capabilities during the Business Process Mapping (BPM) phase. The training sessions will prepare the Agency project team to participate and support the implementation effectively. The sessions will be demonstration-style system walk-throughs. They will be delivered incrementally by the Aurigo Business Analyst during the BPM phase.

Specification Documentation: Functional specifications and Integration documentation are developed, updated, and submitted incrementally during the implementation project. Aurigo will submit the final functional specifications to Agency as part of knowledge transfer.

Sprint Demo and Sprint Test Scripts: Aurigo will provide sprint demos and sprint test scripts to support the Agency with the incremental Sprint testing during the configuration phase of the project.

UAT Overview: Aurigo will provide a UAT overview session for the Agency's UAT testers. The overview will include demo-style walk-throughs of the fully configured system and instructions on performing and recording the UAT results.

Completion of the proposed Aurigo delivered Training, such as End-User Training (Train-the-Trainer approach) and System Administrator training: With the Train-the-Trainer approach proposed by Aurigo for training end-users and system administrators, the goal is to build a pool of enablers/trainers within the organization that continue to serve as experts long after go-live. The results will be a trained workforce ready to use the system and empowered to enable other system users. Specifically, the system administrator training will enable Agency System Administrators to manage and support the maintenance of the system and effectively support business users.

Recordings of Aurigo delivered training: Aurigo will record virtually-delivered training sessions for future reference using MS Teams or Zoom. Aurigo will provide the Agency with unedited recordings as part of the knowledge transfer.

Completing and submitting all the proposed Training Materials to the Agency: Aurigo will submit all training Materials for the Agency's use. An electronic copy of the comprehensive training material comprised of presentation slides and participant guides with detailed instructions will be submitted to Agency as part of knowledge transfer.

Completing and deploying Online Help Documentation on the production environment: The Online Help will be submitted to the Agency as knowledge transfer. It will be made accessible from within the configured system and be available to all users anytime on-demand. Publishing the Online Help to the production environment is considered a submission activity.

Transition: The Agency's Right of Way Management System will be put into production, and Aurigo's Customer Success team will train the Agency's support personnel on how to request support from

Aurigo. The Aurigo Customer Success team will continue to support the Agency's Right of Way Management System as per the Support Plan.

Note: Since Aurigo is proposing a Cloud-based solution, knowledge transfer does not include any activities for physical system operations. System startup, backup and recovery, job scheduling, and disaster recovery procedures are managed by Aurigo's Cloud Ops team as part of the hosting services included in the annual subscription fees. For more details about the training and documentation for knowledge transfer, please refer to Aurigo's response in the sections above.

g.1. Knowledge Transfer Planning - The Knowledge Transfer Plan is a key deliverable for the WVDOT. It is the intention of the WVDOT to require formal sign-off from key Vendor and WVDOT staff members that appropriate knowledge transfer has occurred. The Vendor must work closely with the WVDOT Project Manager and team members to document the knowledge transfer activities that are expected to occur, how they will occur, and the individuals responsible for each activity. As part of the plans produced, the Vendor must document the design, configuration, development, testing and other tasks and assignments that WVDOT personnel are expected to perform to facilitate knowledge transfer. The planning is expected to explicitly include those activities necessary to prepare WVDOT project team members for their project and post- implementation roles. Deliverables: • Knowledge Transfer Plan; and • Formal Knowledge Transfer Signoffs.

See the consolidated response for Knowledge Transfer in the Section above.

Roles, Responsibilities, and Deliverables

The following indicates the roles and responsibilities during each phase of the Masterworks implementation for the Agency.

Roles and Responsibilities – Project Planning			
		Aurigo	The Agency
1	Create and Deliver a baseline Schedule using Microsoft Project	✓	
2	Collaborate on, review, and approve the Baseline Schedule		✓
3	Create the agenda for the Kickoff meeting	✓	
4	Provide space and logistics to facilitate the kickoff meeting at no cost to Aurigo		✓
5	Send the meeting invitations to all project team members and ensure that all required members attend the kickoff.		✓
6	Setup Project SharePoint site with Issue log, Risk register, Feedback log, Documents, Project calendar	✓	

Phase Deliverables

- Process documents that will be used to govern the project
- Requirements Traceability Matrix
- Project schedule

- Change Control plan
- Setup Project SharePoint

Roles and Responsibilities – Business Process Mapping and Business Process Elaboration			
		Aurigo	The Agency
1	Schedule meetings, determine appropriate SMEs, and ensure attendance		✓
2	Conduct business workshop sessions with The Agency subject matter experts (“SME”) to gather information for use in creating the required Functional Specifications	✓	
3	Review and approval of Functional Specifications per the project schedule		✓
4	Create, deliver, and maintain a Requirements Traceability Matrix	✓	
5	Generate meeting minutes of the business workshop session	✓	✓
6	Provide space and logistics to facilitate the Discovery Sessions at no cost to Aurigo		✓

Phase Deliverables

- Functional Specifications and RACI documents will be used for tracking purposes until the requirements are delivered
- Process diagram(s) on how the existing business process will tie into Masterworks
- Any additional Functional Specification documents that further detail each requirement

Roles and Responsibilities – Solution Configuration			
		Aurigo	The Agency
1	Update requirements traceability matrix to show the traceability between requirements and design artifacts	✓	
2	Develop, document, and maintain Functional Specification Documents	✓	
3	Lead walkthroughs of the Functional Specifications	✓	
4	Provide space and logistics to facilitate the Discovery Sessions at no cost to Aurigo		✓
5	Review and document changes to Functional Specifications per the project schedule		✓
6	Propose schedule for configuration	✓	
7	Deliver iterations as per schedule	✓	
8	Set up review meetings, determine required participants, and ensure that all required attendees are present for review		✓

Roles and Responsibilities – Solution Configuration			
		Aurigo	The Agency
9	Review and document iteration feedback using the Feedback Log per the project schedule		✓
10	Generate and deliver test instructions	✓	

Phase Deliverables

- The developed and tested software configurations
- Integration components for integrating Masterworks with The Agency’s external systems
- Detailed test instructions that the Agency can execute

Roles and Responsibilities – Testing			
		Aurigo	The Agency
1	Participate in the planning and provide orchestration and support of the Testing activities	✓	
2	Provide a facility for User Acceptance Testing		✓
3	Lead User Acceptance Testing event		✓
4	Support User Acceptance Testing	✓	
5	Document feedback during UAT	✓	✓
6	Resolve defects discovered during any testing	✓	

Phase Deliverables

- A UAT test result report that will showcase all test scenarios were run to completion along with the results of each test case.

Overall Deliverables for all Testing Activities

- Work with the Agency to answer questions and provide clarifications and assistance
- Resolve outstanding software issues
- Rework required capabilities, if needed, including integrations, forms configuration, workflow specifications, and report requirements

Roles and Responsibilities – Training			
		Aurigo	The Agency
1	Coordinate with the Agency training coordinator to use the Agency’s training facilities and specific equipment needed.	✓	
2	Provide Agency personnel with required facilities, classrooms,		✓

	computers, and network connectivity for Instructor-led (virtual) training.		
3	Develop training materials and online help aligned with the configured system for the Agency	✓	
4	Create and send out the meeting invite and ensure required attendees are present		✓
5	Deliver System Administrator training and Train-the-Trainer training to the users identified by the Agency	✓	
7	Deliver end-user training to remaining The Agency users		✓
8	Coordinate, communicate and track training participation		✓

Phase Deliverables

- Training Material
- Training Sessions: Project Team Training, System Administrator Training, Train-the-Trainer Training

Roles and Responsibilities – Go Live and Closeout			
		Aurigo	The Agency
1	Finalize the production environment for application rollout to the users and other application stakeholders	✓	
2	Enable users and other application stakeholders to use or support the new application during the warranty period	✓	
3	System Acceptance sign-off		✓

Project Governance and Communications Approach

Through a project governance structure, Aurigo will provide effective lines of communication to all the Agency stakeholders and clear paths for escalation of both delivery and contractual issues. These communication channels will be instrumental to the successful delivery of this project and agreed-upon deadlines.

It is envisioned that the Agency and Aurigo project managers will meet weekly to review the project status, issues, risks, and risk mitigation plans. Additional meetings would also happen among the various levels of delivery leadership and the Agency stakeholders to resolve escalated project issues and report project status. Ad-hoc meetings may be held where there is a need to review issues/risks before the next scheduled project status meeting.

Aurigo also recommends a Project Steering Committee be formed, incorporating key project stakeholders and Aurigo representative(s), and chaired by the project business sponsor. The Project Steering Committee would meet monthly to review project status, issues, and risks and potentially consider any proposed changes to project scope. Aurigo will also implement reporting mechanisms that provide the project teams a real-time status of the project and actions in progress.

Project Schedule

The project schedule provides a continuous view of the project progress against the effort assigned to tasks. The project schedule highlights effort under-run and over-run at each task level. The project schedule will be prepared based on Aurigo Connected Methods standardized structure, resource-loaded, and base-lined with the Agency. The project schedule will be created, maintained, updated, and shared with the Agency weekly.

The timeline and progress for each task will be reviewed closely, and material project schedule impacts will be examined for mitigation options and escalated as required weekly. If a significant schedule impact is identified, the project schedule may be re-baselined after the change-management process. Any changes to the project schedule that extend the overall duration will have cost impacts and may trigger a change order.

Project Status Report

The status report communicates overall project status, progress against deliverable completion, project milestones, and issues needing management attention; it also summarizes results, issues, and upcoming plans. It focuses on highlights, exceptions, and matters requiring management attention. The project status report is delivered to the Agency's project manager weekly. Aurigo status reports include the following sections:

- Key accomplishments for this period
- Key objectives for next period
- Key decisions
- Issues for management attention
- Risks for management attention
- Key milestones
- Dependencies

Communication

To keep project management and key project stakeholders informed of the program, it is essential to establish a regular schedule for gathering and reporting team status, project status, opportunities for updates on project direction and issues, and communicating project updates to the Agency.

Meeting	Objective	Frequency	Attendees
Project steering committee meeting	<ul style="list-style-type: none"> Project/program progress update Update on key risks and mitigation plans Cross-functional decisions Review and decide on potential change orders impacting scope, schedule, or budget 	Monthly	<ul style="list-style-type: none"> Agency project sponsor Agency key business owners Aurigo executive, account manager, or project manager
Aurigo internal project-review meeting	<ul style="list-style-type: none"> Update project schedule Update project status report Update weekly accomplishments Update next week tasks Communicate issues/concerns Communicate risks Communicate key decisions 	Weekly	<ul style="list-style-type: none"> Aurigo functional, technical, and configuration team leads
Aurigo and Agency weekly project-review meeting	<ul style="list-style-type: none"> Obtain updates from the Agency on any new project decision and direction changes Update on scope changes (CRs) Update on resource needs Update on milestone dates and key deliverables, risks, and mitigations 	Weekly	<ul style="list-style-type: none"> Project core team Aurigo PM, BAs. Leads as needed Agency PM, BAs. SMEs as needed
Requirements-traceability matrix (RTM) review meeting	<ul style="list-style-type: none"> Review each contracted requirement, validate delivery, and close out the requirements as they are met 	End of each project phase	<ul style="list-style-type: none"> Aurigo and Agency PMs. Others as needed

7.4 Detailed Description of Services/Deliverables to be Provided

The Vendor should describe in detail how each of the services listed in Section 4.2.2. shall be provided in accordance with the Vendor's methodology.

Please see the detailed project plan attached to requirement 7.1 above. It will show how each of the services in Section 7.4 will be provided per Aurigo's methodology.

7.4.1 Right-of-Way, Utility Relocation and Railroad Agreement Functional Requirements

The Right-of-Way, Utility Relocation and Railroad Agreement module of the VPS shall support short-term and long-term maintenance planning, including scheduling work orders, projecting resource requirements

(labor, material, etc.), and highlighting labor, parts, or capacity shortages or excesses. In addition, the system shall be fully integrated with the Materials Management system (whether in wvOASIS or provided by the Vendor). The key Right-of-Way, Utility Relocation and Railroad Agreement capabilities of the planned VPS are described in further detail below.

The Masterworks software products Aurigo proposes to include in the Agency's Right of Way Management System will support short-term and long-term maintenance planning, including scheduling work orders, projecting resource requirements, and highlighting labor, parts, or capacity shortages or excesses. The system can be fully integrated with the Resource Management functions in Masterworks or the Materials Management functions in wvOASIS. Please review Aurigo's responses in the Right-of-Way Requirements Matrix workbook.

7.4.2 Right-of-Way Acquisition Lifecycle (items a-s)

The Right-of-Way Acquisition functionality of the VPS shall include the following capabilities:

(Answers are contained in the following subsections.)

a. Provide the ability to support the management and tracking of the full lifecycle of the WVDOT right-of-way acquisition process including project set-up; parcel identification and set-up; management of acquisition activities; appraisals; negotiation; condemnation; relocation; property management; and management of all associated agreements, forms, and correspondence;

These processes are part of the Masterworks Cloud out-of-the-box functionality. Aurigo will further configure the solution to meet the requirements specified in this RFP.

b. Provide the ability to support the management and tracking of the WVDOT right-of-way acquisition process according to the WVDOT right-of-way acquisition procedures manual and the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970;

The Masterworks Cloud solution provides state-of-the-art configuration capabilities not available in any other solution. The Masterworks Cloud solution is already deployed at other DOTs successfully. Aurigo will leverage its configuration toolkit to ensure the deployed solution meets the business processes specified in this RFP.

c. Provide the ability to support the various types of right-of-way acquisitions, including but not limited to fee simple, permanent easement, temporary easement, functional replacement, Federal Land transfer and the cost of cure for property damages during construction;

These acquisition types are supported by the out-of-the-box capability of Masterworks Cloud

d. Provide the ability to enter, store, and display multiple potential parcels for acquisition on each project including capturing a number of user-defined attributes for each parcel;

Masterworks out of the box functionality

e. Provide the ability to integrate with the WVDOT CAD environment when a parcel is initially set-up to import the ownership index, right-of-way plan sheets, right-of-way map data, and construction plan sheets and store and link this data to the appropriate parcel;

Aurigo has included an integration point with Bentley and Masterworks as part of the implementation to share files across the two applications.

f. Provide the ability to enter, store, and display system appraisal information. This includes all information tied to an appraisal, including parcel, appraisal date, appraiser, valuation, basis for valuation, review appraisers report, etc.;

Masterworks out of the box functionality

g. Provide the ability to generate a 90-day notification letter to property owner based on request by an authorized user and retain document (including issue date) in the system. This letter will typically be issued/sent by a WVDOT district right-of-way agent;

Masterworks comes with the ability to utilize standard Microsoft Word mail merge capability. The only prerequisite is that the data for output exist in the Masterworks data field, and mapping requirements will occur in the implementation. The Agency letter can be configured and generated within Masterworks populated identified data fields into the letter to avoid duplicate entry and save time. This ability is provided out-of-the-box in Masterworks and easily configurable by the Agency designated Administrators to support the Agencybusiness process needs.

h. Provide the ability to generate a 30-day notification letter documenting requirement for property owner to vacate the property based on a request by an authorized user and retain document (including the issue date) in the system. This letter will typically be issued/sent by a district right-of-way agent;

Masterworks comes with the ability to utilize standard Microsoft Word mail merge capability. The only prerequisite is that the data for output exist in the Masterworks data field, and mapping requirements will occur in the implementation. The Agency letter can be configured and generated within Masterworks populated identified data fields into the letter to avoid duplicate entry and save time. This ability is provided out-of-the-box in Masterworks and easily configurable by the Agency designated Administrators to support the Agencybusiness process needs.

i. Provide the ability to enter, store, and display a document acquisition and negotiation activities/log in order of type of activity or timeline with links to associated forms, letters, or other correspondence. This includes the ability for a parcel negotiator to enter all acquisition and negotiation information in the right-of-way solution, including times of contact with owner, offers/promises made, acceptance/rejection or counteroffer by owner, location of the conversation, in-person, mail, phone, etc.;

Masterworks provides this ability by providing the ability for key data (e.g., dates, attachments, data, etc.) to be entered and managed on a parcel. As part of the implementation, we will review the business process and requirements to meet or exceed the requirements. This ability is provided using our standard out-of-the-box form and workflow capabilities with our reporting engine to provide real-time visibility and transparency to the Agency team.

j. Provide the ability to generate a negotiator's certification based on property owners' acceptance of an offer and a request by assigned right-of-way agent;

Masterworks comes with the ability to utilize standard Microsoft Word mail merge capability. The only prerequisite is that the data for output exist in the Masterworks data field, and mapping requirements will occur in the implementation. The Agency letter can be configured and generated within Masterworks populated identified data fields into the letter to avoid duplicate entry and save time. This ability is provided out-of-the-box in Masterworks and easily configurable by the Agency designated Administrators to support the Agencybusiness process needs.

k. Provide the ability to record the amount of a proposed administrative settlement (amount of offer agreed to in excess of documented just compensation) and the basis for the recommendation for the administrative settlement;

Masterworks provides this ability by providing the ability to use our standard out-of-the-box form and workflow capabilities to track and manage this data.

l. Provide the ability to route administrative settlement for approval via workflow that can be configured to include up to four (4) levels of approvals based on user-defined business rules. Provide reviewers/approvers with the option to drill down and see specific details concerning the parcel acquisition (appraisal, negotiations record, etc.) as part of their review process;

Masterworks provides the ability to route administrative settlements using our standard out-of-the-box form and workflow functionality. As part of the implementation, we will review the business process and requirements and configure the solution to meet or exceed the requirements.

m. Provide the ability to support electronic review, approval, and management for memorandums of justification for settlement and administrative settlements. Administrative settlements are encouraged by FHWA Guidelines. In these cases, in addition to documents required above, a memorandum from the District Right-of-Way Manager detailing justification for settlement must be included in the invoice package. Administrative Settlements must be reviewed and approved by the Right-of-Way Director;

Masterworks provides the ability to manage memorandums of justification using our standard out-of-the-box form and workflow functionality. As part of the implementation, we will review the business process and requirements and configure the solution to meet or exceed the requirements.

n. Provide the ability to generate negotiator's progress report for a specific month, or other user-defined period. This report will document assigned parcels by project and parcel number, whether it is a central office or district project, and the status of each parcel including date of deed/option; amount of deed/option; targeted or actual closing date; date of request for condemnation; amount deposited in court; and date of right of entry;

The Negotiator's Progress Report will be configured as part of the implementation. To support this reporting need and provide additional value, users can create reports and dashboards for their individual

use. Each user's home page can be customized with the dashboards they choose, so the relevant data for that user is at the forefront of their Masterworks experience each time they log on.

Masterworks comes with an ad-hoc report builder that allows users to create new reports. It provides the following benefits:

- Easy ad-hoc reporting, with a dynamic step-by-step report wizard to assist end-users
- Easy-to-configure dashboard widgets
- No SQL knowledge needed to write the reports

o. Support managing and tracking of residential and business relocation processes including:

- o Provide the ability to create and maintain a list of displacees associated with each parcel being acquired. The list of displacees provides information about each individual who is eligible for assistance through the relocation process, and
- o Provide the ability to enter and maintain multiple replacement options, including basic property information, building descriptions, utilities, rental adjustments, floor plans, and safe and sanitary standards for residential relocatees;

Aurigo can configure forms, workflows, and reports that the Agency can use to manage its residential and business relocation processes.

Authorized users can maintain a list of displacees using a form configured to capture basic information such as name, address, phone, email address, eligibility for assistance, etc. The Aurigo Team will work with the Agency's SMEs to determine what displacee information needs to be captured, stored, and displayed.

Authorized users can maintain replacement options using one or more forms configured to capture basic property information, building descriptions, etc. The Aurigo Team will work with the Agency's SMEs to determine what property/building information needs to be captured, stored, and displayed.

The parcel forms in Masterworks will be configured to cross-reference the parcels with displacees, property records, building descriptions, utility data, and sanitary standards. Graphical information like pictures and floor plans can be uploaded and attached to any record.

Reports and dashboards can be created to provide a complete picture of a parcel, including displacees affected, property information, building information, etc.

p. Provide the ability to enter and maintain online questionnaire information for displacees, including Interview Date, Interviewee Name, Supplemental Detennination Date and Amount, Offer of FMV Date, Relocation Offer Date, Vesting Date, Ninety Day Notice Date, Thirty Day Notice Date, Date Relocated/Vacated, and Remarks regarding the Relocation;

This ability is supported out-of-the-box in Masterworks.

q. Provide the ability to enter, store, and monitor/display payments made to tenants and vendors during the relocation process, such as closing payments or any payments that may happen, so they can complete the relocation process;

As part of the implementation, Aurigo will integrate Masterworks Cloud with OASIS accounts payable. Aurigo will retrieve payments for any process. This will include easements, relocations, etc.

r. Provide the ability to generate a request to institute condemnation proceedings based on initiation by an authorized user. This letter will document last offer to the property owner; amount asked for by property owner if the property owner has disclosed a price; number of negotiations attempt with the property owner or their authorized representative; and reasons for recommending condemnation; and

Masterworks comes with the ability to utilize standard Microsoft Word mail merge capability. The only prerequisite is that the data for output exist in the Masterworks data field, and mapping requirements will occur in the implementation. The Agency letter can be configured and generated within Masterworks populated identified data fields into the letter to avoid duplicate entry and save time. This ability is provided out-of-the-box in Masterworks and easily configurable by the Agency designated Administrators to support the Agencybusiness process needs.

s. Provide the ability to document in a condemnation request the last offer to the property owner; date of offer; method and person presenting the request; amount asked by property owner if the property owner has disclosed a price; number of negotiations attempt with the property owner or their authorized representative; and reasons for recommending condemnation.

This ability is supported out-of-the-box in Masterworks.

7.4.3 Property Management (items a-d)

The Right-of-Way, Utility Relocation and Railroad Agreements system shall support property management functions. Capabilities shall include:

(Answers are contained in the following subsections.)

a. Provide the ability to maintain all right-of-way assets (Land, Buildings, Leases) and integrate with wvOASIS Asset Inventory so all right-of-way assets are being entered/stored into the right-of-way solution and then interface with wvOASIS to avoid data entry into two separate databases. The right-of-way system should maintain our asset inventory and should integrate with wvOASIS to meet the requirements. Inventory shall include parcel location including full geospatial location, property description, information on any structures and other attributes. Inventory record will be linked back to acquisition information/history;

Masterworks Cloud will hold the asset inventory as stated in this requirement. Aurigo will integrate Masterworks Cloud to OASIS Asset Inventory during the solution implementation phase of the project. The asset information stored in Masterworks Cloud supports full geospatial locations, property descriptions, etc. Any missing attributes will be added using the configuration capabilities of the underlying platform

b. Provide the ability to request and track the progress on all Property Management appraisal report requests;

Masterworks provides the ability to manage Property Management Requests using our standard out-of-the-box form and workflow functionality. As part of the implementation, we will review the business process and requirements and configure the solution to meet or exceed the requirements.

c. Provide the ability to track lease term dates. For example, the system should generate a notification 90 days before the termination of the lease so the Property Management section can take the appropriate steps on renewing or canceling the lease. The notification date or days before termination of the lease should be configurable to allow more or less notice based on the property type and state use of the property; and

This ability is supported out-of-the-box in Masterworks. In support of this request, reports can be subscribed to so the 90-day Notifications report can be automatically generated and delivered to a user.

d. Provide the ability to track and manage when property is sold. This includes removing it from the overall asset inventory and integrating with the various systems so that it is removed from all systems. This includes integration with wvOASIS fixed assets, the WVDOT transportation asset inventory in the TAMS application and the West Virginia Board of Risk Management (BRIM).

The Masterworks Cloud solution supports the disposition of existing assets. Aurigo will integrate the solution with the specified systems to ensure that the disposition of assets is recorded correctly in external systems

7.4.4 Utility Relocation and Railroad Agreements (items a-c)

The VPS shall support identification, documentation and tracking of all utility relocation agreements and railroad agreements in support of WVDOT transportation projects. Required capabilities shall include:

Aurigo Masterworks Cloud can support processes for identifying, documenting, and tracking utility relocation and railroad agreements. Masterworks' standard Contract Management functionality will give the Agency the ability to manage any contract. The Aurigo Team will work with the Agency's SMEs to elaborate on the types of contracts the Agency needs to manage, what data elements (fields) need to be captured, and what business rules are used to drive the contract management processes. Aurigo's Configuration Specialists will configure forms, workflows, reports, and system integrations to meet the Agency's business requirements.

(Additional answers are contained in the following subsections.)

a. Provide the ability to support management and tracking of utility relocation activities required for transportation projects according to the WVDOT utility relocation manual;

Masterworks Cloud supports utility relocations in its out-of-the-box solution. The solution will be further configured to meet the requirements documented in WVDOT's utility relocation manual.

b. Store information about each utility relocation allowing for the capture of various user-defined fields related to the utility relocation; and

Please see Aurigo's response to the Subsection a. requirement above.

c. Provide the ability to support management and tracking of railroad agreements required for transportation projects, allowing for the capture of various user-defined fields related to the railroad agreement.

Masterworks provides the ability to manage and track Railroad agreements using our standard out-of-the-box form and workflow functionality and document management functionality. As part of the implementation, we will review the business process and requirements and configure the solution to meet or exceed the requirements.

7.4.5 Payment Processing (items a-k)

The VPS shall provide support for processing payments associated with acquisition, relocation and other right-of-way business processes, reimbursements for utility relocations and reimbursements associated with railroad agreements. The VPS shall also support review and tracking of payments to right-of-way consultants, appraisers and other contractors supporting Right-of-Way Division activities. Capabilities shall include:

(Answers are contained in the following subsections.)

a. Integrate with the wvOASIS accounts payable function to support payment processing requirements of the right-of way, utilities, and railroad agreement processes;

Masterworks can be integrated with ERP systems to retrieve account balances and payment status. Masterworks cannot issue payments or manage AR account information.

b. Provide the ability to support payment of property acquisition and relocation payments to property owners and displacees (who may or may not already be in the State's vendor master). Integrate with wvOASIS and set-up the property owner or displacee in wvOASIS in order to pay property owners and displacees;

Please see Aurigo's response to the Subsection a. requirement above.

c. Provide the ability to support review and approval of acquisition and relocation payment requests by authorized users based on project number and payment amount through a workflow-driven approval process;

As part of the implementation, Aurigo will integrate Masterworks Cloud with OASIS accounts payable. Aurigo will retrieve payments for any process. This will include easements, relocations, etc. All business processes in Masterworks Cloud are supported by workflow-driven approval processes.

d. Provide the ability to support review and approval of payments by WVDOT Business Manager for payments over a user-defined threshold;

Workflows in Masterworks can be configured to support review and approval of payments, including adding approval from the Agency Business Manager when a requested payment is over a defined amount. Masterworks cannot issue payments or manage AR account information.

e. Provide the ability to record expenditures against project, project phase, and funding source and adjust encumbrance as appropriate via integration with HUB and/or wvOASIS;

This ability to record expenditures is supported out-of-the-box in Masterworks. The integration with HUB and wvOASIS has been included in the implementation for identified data objects.

f. Provide ability to generate payment for property acquisition by warrant via integration with wvOASIS accounts payable;

Masterworks can be integrated with wvOASIS accounts payable. Payment requests can be sent to wvOASIS for approval and payment. Masterworks cannot issue payments or manage AP account information.

g. Provide the ability to record and review a consultant or contractor invoice and then integrate with the wvOASIS accounts payable function to initiate the accounts payable voucher and initiate processing of the consultant payment within wvOASIS. Store the invoice submission in ProjectWise and link to ProjectWise for future retrieval. This requirement should apply to contractor payments for individuals and firms performing contracted services in support of the right-of-way acquisition process and for utilities or railroads performing work under utility relocation agreements;

Consultant and Contractor payment applications are fully supported in Masterworks. A form can be configured to capture invoice information. Masterworks can be integrated with wvOASIS. Payment requests can be sent to wvOASIS for approval and payment. Masterworks can be integrated with ProjectWise, where project and payment information can be stored.

h. Provide the ability to support electronic review and approval of a consultant, contractor, utility company or railroad invoice by authorized users based on project number through a workflow-driven approval process;

Using the Masterworks Workflow Engine, this functionality is fully supported and customizable by the Agency.

i. Provide the ability to display the fund balances on a project/project phase when a payment request is generated in the system;

More information is needed to understand this requirement fully. It will be possible to display fund balances for funds that are encumbered by a project.

j. Provide the ability to initiate payment request based on approvals of invoice by authorized users; and

The Masterworks Workflow Engine supports this functionality in conjunction with integrating Masterworks with the wvOASIS ERP.

k. Provide the ability to record expenditure against project, project phase and funding source and adjust encumbrance as appropriate.

The Masterworks Workflow Engine supports this functionality.

7.4.6 Consultant Contract Management (items a-h)

The VPS shall provide contract management functionality to manage and track consultant contracts for acquisition consultants, appraisers and other contractors supporting Right-of-Way Division activities. This includes project specific contracts, master contracts or indefinite delivery indefinite quantity (IDIQ) type contracts which may have multiple task orders across one or more projects. Capabilities of the VPS system shall include:

(Answers are contained in the following subsections.)

a. Provide the ability to display the fund balances on a project/project phase when a payment request is generated in the system;

This functionality must be customized in Masterworks. One or more Project forms must be reconfigured to display the fund balances.

b. Integrate with the wvOASIS procurement function to access and maintain a list of contract appraisers, attorneys, right-of-way services firms, and firms performing disinterment and reinternment services;

Masterworks can be integrated with the wvOASIS procurement functions. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what system will be the system of record. If Masterworks is the system of record for the data, Masterworks will push the data to wvOASIS. If wvOASIS is the system of record, Masterworks will pull the data from wvOASIS.

c. Provide the ability to maintain a list of approved service providers such as approved appraisers, attorneys, right-of-way consultants;

This is standard Masterworks' Vendor Management functionality. Data for approved service providers can be maintained in the Masterworks Library.

d. Provide the ability to search a list of real estate specific capabilities and specifications which a consultant is authorized to perform;

Masterworks has full enterprise search capabilities. A user will have the ability to search for data in tables and on forms the user has been authorized to access.

e. Provide the ability to document WVDOT selection of consultant including selection team scoring and comments;

This is standard Masterworks' Vendor Management functionality. Workflows can be configured to manage the vendor selection process.

f. Integrate with wvOASIS purchasing function to create purchase orders for selected consultant and encumber funds against the appropriate project, project phase, and funding sources;

Aurigo has included the Purchase Order integration with Masterworks and wvOASIS in the implementation scope. Aurigo will use our Open API to manage the integration between the two systems.

g. Integrate with the wvOASIS procurement/contracts management function to support the creation, maintenance and tracking of contracts for any contracted services such as appraisals, etc.; and

Aurigo has included the Contracts integration with Masterworks and wvOASIS in the implementation scope. Aurigo will use our Open API to manage the integration between the two systems.

h. Provide the ability to support creation, review, approval, and execution of contract change orders.

Masterworks provides the ability to manage Contract Change Orders using our standard out-of-the-box form and workflow functionality. As part of the implementation, we will review the business process and requirements and configure the solution to meet or exceed the requirements.

7.4.7 Workflows, Forms Management and Document Management (items a-c)

The Right-of-Way, Utility Relocation and Railroad Agreements system shall provide robust workflow and forms generation and management capabilities and provide the capability to integrate with the WVDOT Bentley ProjectWise environment. Capabilities in this regard shall include:

(Answers are contained in the following subsections.)

a. Provide the ability to support the definition of workflows to manage electronic review and approval of title information, appraisals, acquisitions, negotiations, relocation of displacees, utility relocation, railroad agreements, etc. These workflows will define and electronically route users through the steps for completing the defined work activities and obtain the necessary approvals for the various right-of-way acquisition, utility relocation and railroad agreement business processes;

This ability is supported out-of-the-box in Masterworks.

b. Provide the ability to define, store and auto-populate templates for various forms and letter templates which are used in the various right-of-way/utilities/railroads processes. The system should have the ability to auto-populate, but also have the ability for manual entry based on user-specified parameters (e.g., project name, parcel, property owner, utility company, utility company contact, and so on); and

Masterworks comes with the ability to utilize standard Microsoft Word mail merge capability. The only prerequisite is that the data for output exist in the Masterworks. The mapping requirements will be configured during implementation. The Agency forms and letters can be configured and generated within Masterworks and populated using identified data fields from the database to avoid duplicate entry and save time. This ability is easily configurable by the Agency designated System Administrators in support of the Agency business process needs.

c. Integrate with Bentley ProjectWise to support storing records related to the right-of-way acquisition, utility relocation or railroad agreements process so as to allow these records to be linked to and accessed within ProjectWise via the Right-of-Way, Utility Relocation and Railroad Agreements system.

Aurigo has included the integration of the records with Masterworks and Bentley ProjectWise in the implementation scope. Aurigo will use our Open API to manage the integration between the two systems.

7.4.8 GIS Integration (items a-i)

The Right-of-Way, Utility Relocation and Railroad Agreements system shall provide a built-in GIS viewer integrated with the WVDOT GIS environment to allow for systems users to spatially view information using the VPS. The Right-of-Way, Utility Relocation and Railroad Agreements system shall also be integrated with the WVDOT GIS environment to allow for viewing of right-of-way, utility relocation and railroad agreement information via the WVDOT GIS environment. Capabilities shall include:

(Answers are contained in the following subsections.)

a. Provide a full-featured GIS viewer within the VPS which integrates with WVDOT's existing ESRI ArcGIS environment;

Masterworks provides a pre-built integration with ESRI ArcGIS. This capability allows users to quickly access project locations and information when in the office or the field. The integration includes map control with read and write operations enabled in project locations, enterprise map viewer, issue log, and forms. This integration provides the ability to identify multiple project locations and project boundaries by placing points or drawing boundaries on a map.

b. Provide the ability for users to utilize a GIS viewer within VPS to view all project information such as the proposed project alignment, right-of-way boundary, parcels, ownership, etc., including the ability to select a parcel and drill down into attribute information available;

Masterworks provides a pre-built integration with ESRI ArcGIS. This capability enables users to use the Enterprise Map Search with a parcel and drill down to the detail associated with the parcel.

c. Provide the ability to display one or more parcels or required utility relocations on a project meeting specific user-defined criteria on a map from within the GIS viewer in the VPS;

Masterworks displays the layers configured in the If the layers are in their GIS DOT's GIS environment. If the layers have been configured by the DOT, they can be displayed via our pre-built GIS integration in Masterworks.

d. Provide the ability to select a parcel or utility relocation/railroad agreement from a map in a GIS viewer within the VPS and drill down to see detailed information about the parcel or utility relocation within the right-of-way solution;

This ability is supported out-of-the-box in Masterworks with our prebuilt GIS integration.

e. Provide the ability to enter a set of selection criteria for any pre-defined report and request that the results be displayed spatially by a GIS viewer within the VPS;

Yes, Masterworks provides the ability for report criteria to be spatially returned in our map view.

f. Provide the ability to enter a set of selection criteria for an ad-hoc query of parcel or utility relocation/railroad agreement information and request that the results be displayed spatially by the GIS viewer within the VPS;

Masterworks provides this ability out-of-the-box in our ROW Map Viewer, which is integrated with ESRI GIS.

g. Provide the ability to select a parcel or utility relocation/railroad agreement from a map in a GIS viewer within the VPS and drill down to see detailed information about the parcel or utility relocation within the right-of-way solution;

Masterworks provides this ability out-of-the-box in our ROW Map Viewer, which is integrated with ESRI GIS.

h. Provide the ability for the user to select an area of interest from within WVDOT's GIS application and request that all parcels, utility relocations or railroad agreements in that area meeting certain user defined criteria stored in the VPS be spatially displayed on a map within WVDOT's GIS solution; and

Masterworks Cloud does not currently support this capability. Aurigo will work with WVDOT to further understand the required capability. Aurigo has not included costs to configure this capability in the pricing provided in its RFP response, as the requirement is not fully understood

i. Provide the ability to select one or more parcels, utility relocations or railroad agreements from a map within an area displayed in the WVDOT GIS application and drill down (assuming the user has the appropriate security authorizations) to see the detailed information about the specific parcel or parcels within the VPS.

Masterworks provides this ability out-of-the-box in our ROW Map Viewer, which is integrated with ESRI GIS.

7.4.9 System Integrations/Interfaces (items a-p)

A number of interfaces will have to be designed and developed to support WVDOT's Right-of-Way, Utility Relocation and Railroad Agreements system functionality. These interfaces include but are not limited to:

(Answers are contained in the following subsections.)

a. An interface from wvOASIS Advantage Human Resource Management to maintain a list of active employees and obtain required employee information;

Masterworks can be integrated with the wvOASIS Advantage Human Resource Management functions. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what employee information needs to be pulled from wvOASIS Advantage.

b. An interface from wvOASIS Advantage Financials to obtain valid chart of accounts elements;

Masterworks can be integrated with the wvOASIS Advantage Financials. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what chart of accounts elements needs to be pulled from wvOASIS Advantage.

c. An interface from the WVDOT HUB application to obtain project information when the Right-of-Way phase is initiated and to obtain any updates to this information during the project lifecycle;

Masterworks can be integrated with the WVDOT HUB application to obtain project information when the Right-of-Way phase is initiated and to obtain any updates during the project lifecycle. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the WVDOT HUB.

d. An interface to the WVDOT HUB application to request budget for the Right-of-Way phase upon phase initiation and to request budget adjustments if required during execution of the Right-of-Way phase;

The Masterworks Workflow Engine supports this functionality in conjunction with integrating Masterworks with the WVDOT HUB.

e. An interface to the WVDOT HUB application with updates (schedule dates, estimated cost, etc.) on right-of-way acquisition activities;

Masterworks can be integrated with the WVDOT HUB to exchange data on right-of-way acquisition activities.

f. An interface from the WVDOT CAD environment to obtain right-of-way plans to utilize in the initial set-up of parcels;

More information is needed to understand this requirement fully. It may or may not be possible to utilize right-of-way CAD plans to set up parcels in Masterworks.

g. A two-way interface with the WVDOT Bentley ProjectWise environment to support storing, linking to, and retrieving documentation associated with a parcel, utility relocation or railroad agreement;

Masterworks can be integrated with Bentley ProjectWise to support storing, linking, and retrieving documentation associated with parcels, utility relocations, or railroad agreements. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with Bentley ProjectWise.

h. An interface from the WVDOT CAD environment to obtain any changes to right-of-way plans after acquisition activities have been initiated;

Masterworks can be integrated with the WVDOT CAD environment. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to understand the triggering events for pulling down updated plans.

i. An interface to the new WVDOT TAMS environment to record completed utility relocations or railroad agreements;

Masterworks can be integrated with the WVDOT TAMS environment for recording completed utility relocation and railroad agreements.

j. A two-way interface with the Railroad Crossing Inventory to obtain railroad crossings within the project limits as part of project planning and to provide updated information back to the Railroad Crossing Inventory upon the completion of any railroad relocation activity.

More information is needed to understand this requirement fully. The Aurigo Team will work with the Agency's SMEs to define what information needs to be exchanged.

k. An interface to the new WVDOT TAMS environment to record property acquired that is not for a transportation facility or not for immediate use on a transportation facility and will be managed for a period of time by WVDOT;

Masterworks can be integrated with the WVDOT TAMS environment for exchanging property information.

l. An interface to wvOASIS fixed asset register to record property acquired that is not for a transportation facility or not for immediate use on a transportation facility and will be managed for a period of time by WVDOH;

Masterworks can be integrated with the wvOASIS fixed asset register for exchanging property information.

m. An interface to BRIM to record property acquired that is not for a transportation facility or not for immediate use on a transportation facility and will be managed for a period of time by WVDOH;

Masterworks can be integrated with BRIM to record information about acquired properties. The Aurigo Team will work with the Agency's SMEs to understand the triggers for recording information in BRIM

n. An interface to wvOASIS Advantage Financials Accounts Payable module to create an accounts payable voucher in a draft stage for various types of payments that may be made as part of the right-of-way acquisition process or to reimburse utilities or railroads for any reimbursable costs;

Masterworks can be integrated with wvOASIS accounts payable. Draft accounts payable vouchers can be created in Masterworks and then sent to wvOASIS for processing. Masterworks cannot issue payments or manage AP account information.

o. An interface to wvOASIS Advantage Procurement to set-up contract documents for right-of-way consultants and other contractors and to modify these contract documents in the event of approved change orders; and

Masterworks can be integrated with the wvOASIS procurement functions. Masterworks has built-in Contract Management abilities that the Agency can use end-to-end for managing consultant and contractor contracts. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what contract information needs to be uploaded to wvOASIS.

p. An interface to wvOASIS Advantage Financials Accounts Payable module to create an accounts payable voucher in a draft stage for contractor and consultant payments based upon initial invoice approval in the VPS.

Masterworks can be integrated with wvOASIS accounts payable. Accounts payable vouchers can be created in Masterworks upon invoice approval and then sent to wvOASIS for processing and issuing payments to consultants and contractors. Masterworks cannot issue payments or manage AP account information.

7.4.10 Management Reporting

The VPS shall provide a range of standard pre-defined reports that are available using role-based access, support integration with leading third-party reporting tools and incorporate an ad-hoc query capability within the proposed software solution.

Masterworks comes with numerous pre-defined industry standard reports. During the elaboration phase of the implementation project, the Aurigo Business Analyst will work with the Agency's SMEs to determine what reports are needed. Aurigo can then configure new reports that meet the Agency's criteria. The Agency can also use the Report Builder in Masterworks to create and maintain their reports.

If the Agency has a third-party reporting tool it likes to use, it may be possible to integrate Masterworks with the tool using Masterworks' APIs. During the elaboration phase of the implementation project, Aurigo's Business Analyst and System Integration Specialist will work with the Agency's SMEs to determine the touchpoints and define the best integration method. The interface will be powered by a JSON Web service that supports pagination to send data on a batch basis if necessary. The data can then be uploaded and analyzed in the reporting tool.

7.4.11 Technical Specifications (items a and b)

WVDOT is open to proposals for deploying the new VPS using either an on-premise implementation in a State Data Center or in a Software as a Service (SaaS)/Cloud model in a Vendor hosted environment. The VPS architecture and infrastructure shall be consistent providing a unified approach and user experience throughout the solution proposed.

Aurigo is proposing a Software-as-a-Service offering. The proposed Right of Way Management System will be hosted on AWS servers.

(Additional answers are contained in the following subsections.)

a. Application Architecture - The VPS application architecture shall provide a consistent set of general system features and functions which occur across all business functions within the VPS application, These general system features and functions include a consistent user interface, workflow design and development capabilities, self-service functionality, capability to integrate with document management solutions, capabilities to integrate with the WVDOT GIS environment, capability to integrate with computer aided dispatch and automated vehicle locating (AVL) technology, mobile technology capability, security, archiving, audit trails and online help functionality.

At each level in the logical software, architecture plug-ins (Masterworks software products) and customer-based configuration can be injected. Significant configurations can be performed by internal services staff, System Integrators, and even end-users if required. Please see the Masterworks Application Architecture Design in TAB 9.

The Aurigo Masterworks Cloud Platform and all the software products in the Aurigo Masterworks Cloud Suite were developed by Aurigo. Masterworks provides a consistent set of system features and functions across all its software products, including:

- a consistent user interface
- a common workflow design and development capabilities
- an easy self-service functionality
- the capability to integrate with external systems that use APIs for communication, such as the Agency's GIS environment and AVL technology
- mobile technology capability that allows working in the field on mobile devices
- common security, archiving, audit trail, and online help functionality

b. Technical Architecture - The VPS technical architecture shall provide tools to allow for enterprise application integration and data integration with other State of West Virginia systems including extract, transform and load (ETL) tools and/or the capability to use third party tools for this purpose. The VPS shall also provide various system management tools or integrate with appropriate third party tools necessary to manage the operation of the VPS solution. The VPS shall provide a fast and highly reliable level of system performance supporting business continuity consistent with the performance standards in Attachment A. The system design of the core VPS software and any customizations shall be implemented so as to provide for long-term supportability.

Aurigo Masterworks Cloud is a cloud-based solution hosted on Amazon's AWS infrastructure, including an Elastic Load Balancer, Web server(s), Database server(s), and SSRS services. Amazon has the most flexible, scalable platform available and will allow Masterworks to scale to the demands of the County's users. The Agency can use the Masterworks APIs for enterprise application integration and data integration with other State of West Virginia systems.

When users access Masterworks using the Masterworks URL, their request will hit the AWS Elastic Load Balancer (ELB) first over PORT 80 and 443. Aurigo configures all traffic that is sent to PORT 80 to be sent to PORT 443 by default. The ELB routes the traffic to the webserver over PORT 80. The web server calls the database server over PORT 1433. The web server also talks to the reporting services (SSRS) over PORT 80. Please see the below Hosting Architecture diagram in TAB 9.

Aurigo Masterworks Cloud is designed to be scalable both horizontally and vertically. Aurigo uses AWS ELB (Elastic Load Balancer) at the web layer on top of each web server. Using the AWS ELB provides for automatic failover in case of a web server instance failure. Web servers can be added to achieve horizontal scaling, or CPU and memory can be increased as required for vertical scaling. Disk space can be increased on the fly without any downtime for storage scaling. In the database layer, Aurigo makes use of Microsoft SQL Server's Always-On High Availability Group. In case of failure of the primary database server, the secondary database server comes up automatically within a few seconds.

7.5 System Support Services

The Vendor should address the following technical elements within this subsection:

- Standard methodology for developing a business continuity plan, continuity capabilities and high availability infrastructure, as well as a detailed explanation of the related approach, activities, procedures, tools, and templates and how the Vendor manages these activities and leverages the tools and templates;
- Disaster recovery guidance and execution (if necessary) for the duration of the project in accordance with the WVDOT's disaster recovery plan;
- Performance tuning of databases, application servers, web servers, and other software and devices deployed as part of the proposed solution. This includes batch and online software tuning, as well as data conversion software tuning; and
- Software upgrade methodology, as well as a detailed explanation of the related approach, activities, procedures, tools, and templates, and how the Vendor manages these activities and leverages the tools and templates.

Business Continuity and Disaster Recovery Plan

Aurigo has a well-formulated Business Continuity and Disaster Recovery Plan, which approaches disaster recovery on three fronts.

1. Solution architecture has built-in redundancies at multiple levels to protect against failures.
2. Aurigo has well-documented disaster scenarios and recovery procedures on which administrative staff is trained.
3. Aurigo performs periodic testing of disaster scenarios to prepare staff, identify gaps, and implement resolutions.

Aurigo's clients are entitled to expect that Aurigo does everything possible to ensure minimum disruption to its operations and the delivery of products. Aurigo has a Business Continuity Management Program, which results in a set of interlocking plans and arrangements to ensure the best response to any disruptive incident. These plans and arrangements are part of Aurigo's Business Continuity Management System (BCMS) that follows the ISO 22301:2019 security and resilience requirements for business continuity management systems.

In the event of a major disaster, priority will be placed upon the safety and welfare of Aurigo's staff and visitors, above the restoration of business processes. While the two are not mutually exclusive, management focus and resources will be diverted, where necessary, from business process recovery actions to ensuring safety and welfare. This policy adheres to the applicable legal, regulatory, and contractual requirements of the organization. The BCMS will be continually improved based on the lessons learned, exercises, incidents, and periodic internal audits. Aurigo backs up its cloud application daily using AWS EC2 (Elastic Compute Cloud) and AWS Lambda. Full machine backups called Amazon Machine Images (AMI) are created daily, and Elastic Block Storage (EBS) volume (disk) snapshots get created along with the AMI. In the event of a disaster, Aurigo can either spin up a whole new machine using the AMI or take the EBS snapshots and attach them as volumes to an existing machine.

- Backups are monitored for successful execution daily. Any failures are handled as a priority, ensuring the backup is successful by the next business day at the latest
- The health of backups is tested quarterly to ensure restore procedures are current and backups can be relied upon if a restore is required
- The backups are stored on multiple data centers to ensure off-site storage

Due to the confidential nature of the information, Aurigo is limited to what it can share within an RFP response. Aurigo looks forward to the opportunity to discuss in detail the environment, redundancy, and backup plans put in place to ensure the Agency's peace of mind. Aurigo can provide more detail, under separate cover, upon the execution of a Non-Disclosure Agreement (NDA).

Software Upgrade/Update Policy

Major and Minor Upgrades

New minor versions of Aurigo Masterworks Cloud are released periodically, about once per quarter. New major versions of Aurigo Masterworks Cloud are released every two years. All upgrades are coordinated with Agency staff to ensure no downtime or disruption of business. Regardless of the type, any upgrades are first deployed on the User Acceptance Testing environment for Aurigo and the Agency to determine if the upgrade meets expectations. Bugfix and other patch upgrades are generally initiated by a helpdesk ticket filed with the Aurigo Customer Support team. The Customer Support team will work with the Agency to identify how the upgrade can be promoted from the UAT environment to production. As with other software maintenance, the promotion of patches from the UAT to production occurs during a defined maintenance window to minimize the impact on the Agency's systems and users.

Minor releases follow the same protocol as bugfix and patch releases. The difference is that the Customer Success team or other designated Aurigo representative will reach out to the Agency directly at least two (2) weeks before the upgrade is scheduled to occur. The Customer Success team will then work with the Agency to ensure that it is well-positioned to receive the upgrade, including managing the initial deployment to UAT and the subsequent approval by the Agency for promotion to production.

Major updates are handled through the Professional Services team due to the complexity of the upgrade process. Version-to-version upgrades are run as a project equal to the complexity and scope of the initial implementation to ensure that configurations and customizations remain viable during the upgrade. This allows GLWA to take advantage of new features in the latest version of Aurigo Masterworks.

Aurigo has two types of upgrades to Aurigo Masterworks Cloud.

1. Major Upgrade: This is a major version upgrade and can include workflow changes, UI changes, new security features, newer modules, etc.

- Process: The standard process detailed above is followed. Aurigo will also produce or update the user documentation and release notes for the new features released.
- Frequency: Once a year with prior approval from the Agency.

2. Minor Upgrade: This upgrade contains enhancements to existing features, security fixes, and application-level performance enhancements.

- Process: In this upgrade, the build is first hosted in the staging environment, where Aurigo's and GLWA's testing teams will test the upgrade. Post Agency sign-off, the build is then deployed in GLWA's production environment
- Frequency: Not more than four times a year

Scheduled Downtime

Aurigo Masterworks Cloud is available 24/7 except during pre-planned downtime for regularly scheduled maintenance.

Aurigo has a well-defined software update process that addresses scheduling, user experience, and other service factors. Aurigo publishes a software update schedule each quarter that shows the system configuration, patch management, and software update release plans for the following 12 months. Each release plan includes the expected release content and Agency actions (if any) required before the upgrade is performed. The Agency is notified well in advance if an upgrade will incur system downtime, and Aurigo will work with the Agency to schedule upgrades within approved downtime windows whenever possible. In most cases, the scheduling of downtime can be adjusted to meet the Agency's specific needs.

Regular maintenance windows are scheduled at times of least usage, typically on weekends after regular business hours. Most patches are applied as required during the normal course of business and usually do not incur any downtime. 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.

Performance Tuning

Aurigo's post-implementation support model is geared toward maintaining the system to meet the Agency's ongoing needs. Aurigo's model is based on 15 years of successful project delivery and is optimized to deliver success. As part of Preventive Maintenance Services, Aurigo undertakes performance-tuning measures to improve system performance and security. The Agency's Project Manager and the Aurigo Project Manager will coordinate key performance tuning activities using the Project Management and Communication plans to ensure the proper uses(s) are available, expectations are defined, and success criteria are quantified. All tasks will be scheduled, managed, and tracked from start to completion. As with all tasks, Aurigo will provide enough advance notice when scheduling meetings and activities.

7.6 Lessons Learned

The Vendor should provide a discussion of the significant lessons learned from experience at previous projects of similar size and scope, and how the Vendor plans to apply those lessons to the Right-of-Way, Utility Relocation and Railroad Agreements management system project.

Capturing lessons learned is one part of the Aurigo Connected Methods (ACM) project implementation methodology Aurigo uses to deliver customer solutions. As a result, Aurigo has gathered lessons learned from its project implementations for more than fifteen years. Aurigo has learned several lessons from past implementation experiences:

1. When a customer implements a new system, it will trigger changes in its current business processes. The customer's business owners must make critical decisions throughout the implementation. Delays in making decisions result in extending the project's schedule. It is critical to identify responsible stakeholders early in the implementation lifecycle and empower them to make decisions on behalf of the organization. Doing so will reduce project delays and help move the implementation in a positive direction.
2. Aurigo has seen projects being delayed because of customer team member unavailability. Identifying the required resources early in the implementation cycle and ensuring their commitment to meet the project schedule are key ways to avoid project delays and successfully implement the project.
3. The benefits of a new system are not realized unless people adopt the change. The percent of new

solution adoption directly correlates to the level of project success. Defining and executing an Organizational Change Management plan until the project is fully implemented will improve user adoption and increase the chance the project remains on schedule.

Tab 8 Responses to State's Goals and Objectives

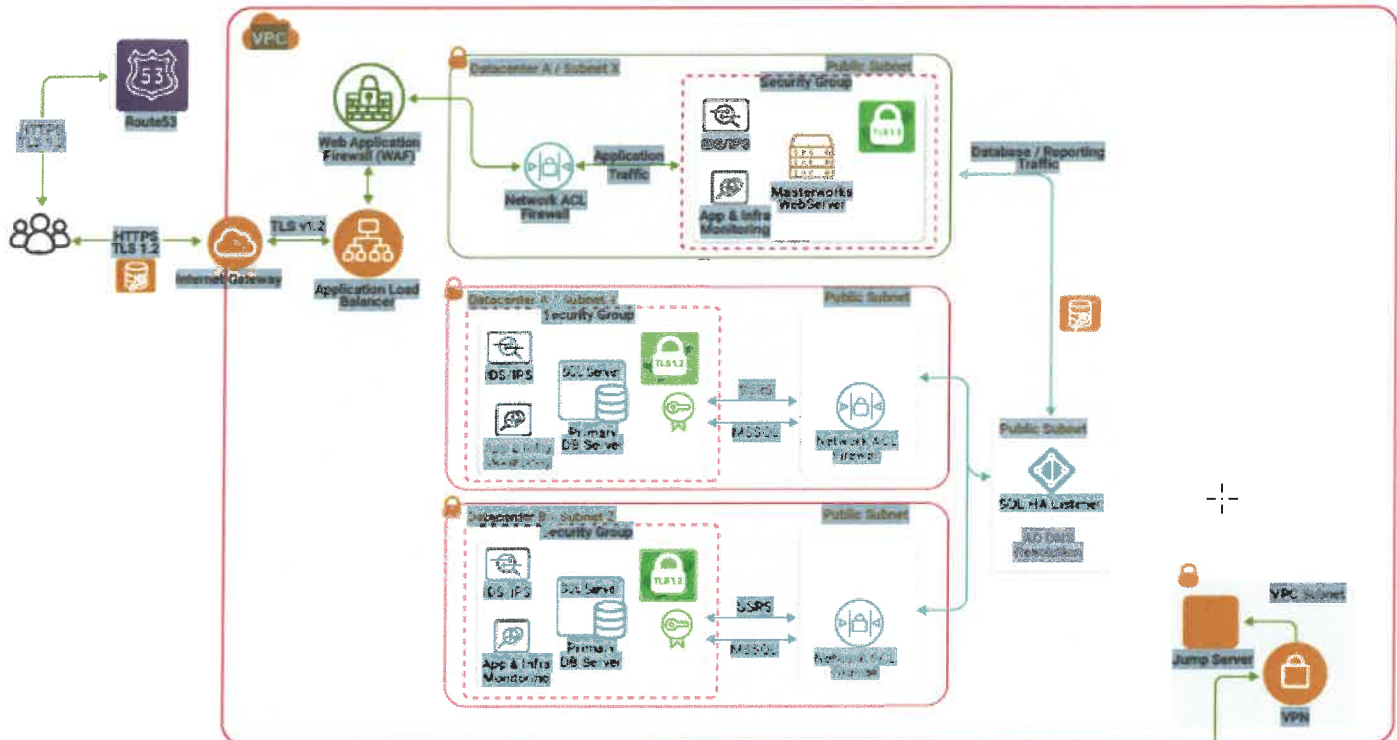
8.1 Architectural Design

Vendor's proposal shall provide an architectural design based on the capacity and storage requirements listing in this RFP. The proposal shall include a description of the methodology that will be utilized to size, plan, and execute the implementation of a turnkey solution.

Please see Aurigo's SaaS Architecture for Aurigo Masterworks Cloud on the following page.

Aurigo's Cloud Ops team will monitor the Agency's production environment. Aurigo Masterworks Cloud is hosted on the AWS cloud and designed to be scalable horizontally and vertically. Aurigo uses AWS Elastic Load Balancer (ELB) at the web layer. Using the AWS ELB provides for automatic failover in case of a web server instance failure. Web servers can be added to achieve horizontal scaling, or CPU and memory can be increased as required for vertical scaling. Disk space can be increased on the fly without any downtime for storage scaling. In the database layer, Aurigo makes use of Microsoft SQL Server Always-On High Availability Group. In case of failure of the primary database server, the secondary database server comes up automatically within a few seconds.

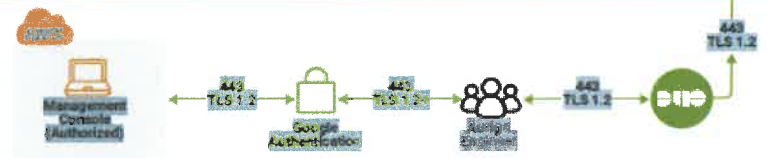
During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to size all of the Agency's data processing requirements. The SaaS Architecture for the Agency's Right of Way Management System will be configured to accommodate the expected processing needs.



↔	MSSQL	TCP-1433	TLS1.2 Authenticated Encryption
↔	HTTPS	TCP-443	TLS1.2 Authenticated Encryption

TLsv 1.2 Only on Server

End to End Encrypted



8.2 Software and Hardware Components

Vendor's proposal shall outline all software and hardware components required to meet the mandatory requirements. The proposal should identify any features/functionality that exceed the mandatory requirements. The proposal must contain technical documentation on each component in the proposed solution. This documentation will allow for a comprehensive evaluation.

Aurigo is proposing its Aurigo Masterworks Cloud software to meet the Agency's Right of Way Management System requirements. Masterworks is a SaaS solution that is hosted in the Cloud. The Agency will not need to procure additional servers or data center equipment. Masterworks will run on standard client systems like desktops, laptops, tablets, and smart devices. The Agency's users will need internet access to use Masterworks.

Aurigo Masterworks Cloud Platform

All products in the Aurigo Masterworks Cloud suite are built on the Masterworks Cloud Platform. The following Masterworks Cloud Platform capabilities can be used across any of the products in the Aurigo Masterworks Cloud Suite:

Document Management – The Aurigo Masterworks Platform has robust document management functionality that supports tracking, revisions, and storage for all important documents and workflows.

Advanced Workflow and Notification Engine - The Agency will be able to control and automate any process, form, or document, including pay requests, milestones, change orders, and more. The Agency will keep its business processes on schedule, stakeholders alerted to their pending tasks, and projects on track.

Reports, Analytics & AI - Masterworks will help the Agency stay in front of its projects by bringing real-time reporting to all capital programs, construction and maintenance projects, and right of way projects. The Agency will have the ability to modify and create new reports. The dashboards in Masterworks will give the Agency visibility into the status, schedule, issues, and details for every asset, parcel, and project.

Native Mobile Apps - Masterworks provides native mobile app capability for many products and forms the Agency will most commonly use out in the field.

Right-of-Way and Land Management

Masterworks' Right-of-Way and Land Management product will help the Agency manage the end-to-end parcel acquisition process. Starting with surveys and visually mapping each parcel using ESRI ArcGIS, all the way through acquisition by deeds, easements, or eminent domain. The Right-of-Way and Land Management product will also help with regulatory compliance.

Aurigo's online Right of Way product includes:

✓ **Land Tracking**

- Land bank
- Parcels
- Parcel checklists
- Land forecasts
- Land scoring

✓ **Land Acquisition**

- Project ROW map
- Configurable templates
- Notices and automated notifications
- Deeds
- Easements
- Offers
- Counter-offers
- Agreements
- Eminent domain / condemnation / expropriation
- Relocation process
- Electronic signatures
- Payments

✓ **Surveys & Appraisals**

- Land surveys
- Appraisals
- Appraised land value

✓ **Reports & Dashboards**

- Land acquisition status
- Track FHWA compliance
- Track environmental requirements
- Track compensation payments
- Land disposition status

✓ **Legal Compliance**

- Full audit trail of every activity
- Environmental clearance
- Public meetings and public hearings
- Electronic signatures

✓ **GIS/ESRI Integration**

- Map land parcels
- View land features
- View utilities
- View property boundaries
- Geo-tagging

✓ **Mobile Apps**

- Mobile field appraisals and survey forms

✓ **Document Management**

- Online document library
- Approvals and legal e-signatures
- Track revisions and mark-ups

✓ **Integrations**

- Financial systems
- Payment systems
- DocuSign

Contract Management

Masterworks' Contract Management will help the Agency seamlessly move contracts from creation through closeout without missing a step in the process. Contract Management will give stakeholders visibility, improve communication, and automate the contract change process so the Agency can keep its Right-of-Way, Utility Relocation, and Railroad Agreement projects on schedule.

Aurigo's SaaS Contract Management product includes:

✔ **Contracts**

- Create contracts
- Multiple contracts within a project
- Import completed bids
- Define contract calendar and schedules
- Create itemized scope
- Track documents
- Manage change process
- Full audit trail
- Electronic signature with DocuSign
- Document annotations with Leadtools

✔ **Costs & Forecasts**

- Forecast costs
- Manage schedule of payments
- Compare actuals to plans

✔ **Sites and Progress**

- Daily progress reports
- Track work progress
- Record worksite conditions
- Record daily progress updates

✔ **Payments**

- Generate pay estimates for work completed
- Materials on hand
- Advances and adjustments
- Retention

✔ **Issue Tracking**

- Contract issues
- Schedule issues
- Safety issues
- Track logged issues to closure
- Contract closure punch list

✔ **Contract Administration**

- Contract governance
- Submittals
- Request for Information (RFI)
- Potential Change Order (PCO)
- Change Order (CO)
- Request for Sublet
- Contractor Performance

✔ **Mobile Apps**

- Update contract progress from anywhere
- Record site conditions

✔ **Integrations**

- Financial systems
- Payment systems
- DocuSign

Construction Project Management

Masterworks' Construction Project Management product brings together everything the Agency needs to plan, track, automate, and manage encumbrances, budgets, schedules, contracts, inspections, environmental compliance, and risk management in one integrated solution. The Agency will have all the Right-of-Way project information it needs and can adjust plans to ensure optimum resource allocation as projects evolve.

Construction Project Management Features

✔ Project Management:

- Clear project objectives
- Create multi-phase project plans
- Project schedules
- Define work items
- Multi-level tasks and sub-tasks
- Identify stakeholders
- Resource requirements
- Cost impact analysis
- Assign resources to tasks
- Over-utilization alerts
- Overlapping assignment alerts
- Project Gantt charts
- Project status & real-time monitoring
- Expenses
- Submittals
- Transmittals
- Minutes of Meeting (MOM)
- Risk register
- Issue log
- Track timeline vs. plan
- Project checklists
- Project KPIs
- Project dashboards

✔ Fund Management:

- Fund sources
- Fund plans
- Fund ratios
- Fund allocations to programs and projects
- Fund-source transactions
- Fund rules at deliverable level
- Encumbrances
- Fund forecast
- Funds availability
- Fund utilization
- Manage fund transactions
- Track actuals
- Track spent ratios
- Validation rules & notifications
- Funds reports
- Funds dashboards

✔ Budget Management:

- Work items and standard price
- Estimate project costs
- Associate funds to items
- Associate resources to items
- Multiple budget estimates & scenarios
- Forecast for each estimate
- Multiple forecast & scenarios
- Define operating budget
- Approvals workflow
- Manage cash flows
- Track funding sources
- Track itemized costs
- Revisions and re-forecasting
- Track revisions
- Budget allocation
- Compare budget vs. actuals
- Budget reports
- Budget dashboards

✔ Resource Management:

- Enterprise Resource Directory
- Define roles and job categories
- Set baseline cost structures
- Online resource requests
- Labor capacity planning
- Schedule people
- Track resource availability
- Notifications
- Risk analysis
- Coverage analysis
- Equipment management
- Define equipment needs
- Equipment capacity planning
- Scheduling
- Vendor notification
- Coverage analysis

✔ Reports & Graphs:

- Auto-generate completion status reports
- Project financial reports
- Program financial reports
- Project Dashboards

✔ Analysis:

- Resource utilization
- Coverage analysis
- Cost impact analysis
- Risk analysis
- Forecast analysis
- Compare existing plans
- Budget analysis
- Manage cash flows

✔ Mobile Apps:

- Inspection forms
- Plus, all Project Management functionality is available via browser from any laptop, tablet or mobile device

✔ Document Management:

- Contracts
- Communications
- Collaboration with annotations via Leadtools
- DocuSign electronic signatures
- Project documents
- Funding documents

✔ Integrations:

- Easy to import data from previous projects
- Accounting systems
- Financial systems
- Data warehouses
- Project management systems
- ESRI/GIS mapping
- DocuSign electronic signatures

The Agency's Right of Way Management System will be configured to meet the requirements in the Agency's RFP. The Agency will not pay for any additional software that it will not be able to use. The Agency will be able to take advantage of all the features and functions in the proposed Masterworks software.

8.3 Deploying Components and Migrating Data

Vendor shall describe the process for deploying the components outlined in the proposal and should address a recommended approach for the migration of existing data and services.

Please see the Aurigo Connected Methods (ACM) document that has been attached in response to the 4.3.13.3 requirement. ACM is Aurigo's project management methodology it uses to deliver solutions to its customers. The ACM document shows how Aurigo will configure, test, and deploy the Agency's Right of Way Management System into production. Throughout the configuration and testing phases of the project, Aurigo and the Agency will use sample data to test the scripting created for the data migrations. All testing will occur in a UAT environment. Once the User Acceptance Testing is complete, and the Agency has accepted the results, plans will be created on when the fully configured solution will be moved out of the development environment and into the production environment. At the same time, the final and full data migrations will be performed, and the existing data from the Agency's external systems will be uploaded in the production environment.

8.4 Technical Support and Maintenance

Vendor shall describe the VPS technical support and maintenance needs along with their staff capability to support them and include a detailed plan for hardware/software support and knowledge transfer, installation, ongoing support, and training.

The hosting, software maintenance, and technical support services Aurigo will provide to the Agency are included in the Annual Subscription Fees paid by the Agency. Aurigo's Customer Success team is approximately ten (10) people that will be dedicated to answering the Agency's questions and ensuring that the Right of Way Management System is operating to specifications. The Customer Success team provides post-implementation support and maintenance services at the end of the post-implementation warranty period. The Agency will be assigned a Customer Success Specialist (CSS) who will be the primary point of contact when the Agency needs to report issues or defects. The CSS will work with the Agency IT personnel to identify, triage, troubleshoot, and resolve issues as they come in. The Agency IT personnel will have the option of escalating defects to the Aurigo Customer Success Manager (CSM) or the Aurigo Vice President of Customer Success as necessary.



The Agency can contact Aurigo support during support hours via telephone or 24x7x365 via email or Web portal. Aurigo will track all issues, regardless of the submission method, through Aurigo's ticketing system, which will provide the up-to-the-minute status of issue resolution. Generally, all communication for in-progress issues will be handled through the ticketing system, although telephone calls will also be available during support hours. Aurigo will provide ticketing system access to the Agency. Aurigo's support for the Agency assumes the Agency IT Department or Helpdesk will take all calls from the Agency's end users. The System Administrator Training provided by Aurigo will give the IT Department or Helpdesk personnel the knowledge needed to resolve most support calls received from end-users (i.e., new user setup, password reset, connection problems, etc.). The Aurigo Customer Success team will directly support the Agency IT Department or Helpdesk. Customer Success will help the IT Department or

Helpdesk with any unresolved Tier 1 issues, along with all Tier 2 and Tier 3 issues, reported by the Agency's IT Department or Helpdesk. Customer Success will not directly support the Agency's end-users and will only be involved in calls with end-users if the Agency's IT Department or Helpdesk are also involved in the calls. All Aurigo Customer Success Specialists are based out of Aurigo's Headquarters in Austin, Texas, USA.

Please see a description of Aurigo's project management methodology for software installations in the Aurigo Connected Methods document attached in the 4.3.13.3 requirements response. It describes the steps Aurigo takes when installing software into production for a customer. Please see Aurigo's response to the 4.2.2.30.7 requirements to learn how Aurigo will manage knowledge transfer to the Agency.

8.5 Software Compatibility

The proposed solution shall be compatible with the State of West Virginia software standards and security policies. The solution shall be compatible with Google Workspace products (the State is currently transitioning from Microsoft Office to Google Workspace) and State of West Virginia's acceptable use policy. These policies are located at: <https://technologv.wv.gov/security/Pages/policies-issued-by-the-cto.aspx>.

Aurigo Masterworks Cloud is accessible via any browser to the end-user as long as the user can access the internet. The solution supports standard email protocols and therefore is compatible with g-mail and many other Google Workspace products. Masterworks cloud does directly support Google Drive, Sheets, Slides, and Forms.

8.6 Operational Excellence in Row Acquisition Processes

Vendor's proposed solution shall support WVDOT in achieving operational excellence in terms of the Right-of-Way acquisition processes as follows: • Provide the ability to support the management and tracking of the full lifecycle of the WVDOT right-of-way acquisition processes including project set-up, parcel identification and set-up, management of acquisition activities, appraisals, negotiation, condemnation, and relocation; • Provide the ability to support managing and tracking property management business processes; and • Provide the ability to support the management and tracking of consultant contract agreements and manage review/tracking of consultant invoices in support of right-of-way processes.

The Aurigo Masterworks Cloud solution will provide the specified capabilities. Out-of-the-box the solution support acquisitions, appraisals, negotiations, condemnation, and reallocation. The solution also supports property management workflows, and consultant services contracts. Aurigo will work with WvDot to further configure the out-of-the-box solution to meet the requirements documented in this RFP.

8.7 Operational Excellence in Utility Relocation Business Processes

Vendor's proposed solution shall support WVDOT in achieving operational excellence in terms of the Utility Relocation business processes as follows: • Provide the ability to support the management and tracking of the full lifecycle of the WVDOT utility relocation processes including project setup, identification and documentation of utilities potentially impacted by the project and the nature of the impact, tracking required coordination with impacted utilities, creating relocation agreements with each utility required for the project, tracking the completion of the relocation work, and tracking and supporting payment of invoices for costs to be reimbursed by the WVDOT.

Relocation Business processes are supported in the Masterworks Cloud solution. Aurigo will further configure the out-of-the-box solution to meet the requirements documented in this RFP.

8.8 Operational Excellence in Railroad Agreements

Vendor's proposed solution shall support WVDOT in achieving operational excellence in terms of the Railroad Agreements as follows:

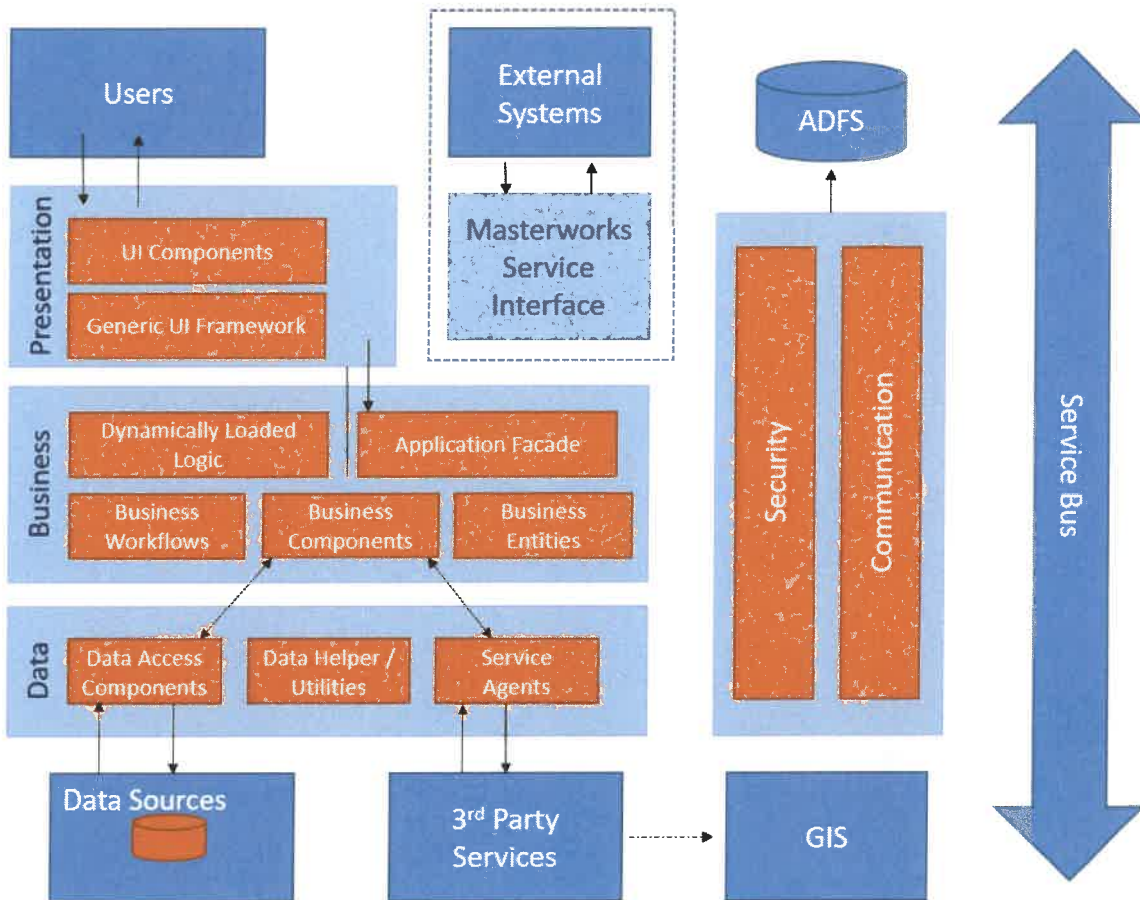
- Provide the ability to support the management and tracking of the full lifecycle of required WVDOT railroad agreements requiring railroad coordination, including project set up, identification and documentation of railroad right-of-way impacted by the project, creating railroad agreements when required, and tracking and supporting payment of invoices for costs to be reimbursed by the WVDOT.

Aurigo Masterworks Cloud does not currently have railroad agreements as part of its out-of-the-box solution. Aurigo will leverage its configuration toolkit to add those business processes to the solution deployed for The Agency.

Tab 9 Capabilities of Proposed RoW Management System

Architecture Overview

Aurigo offers Software-as-a-Service (SaaS) implementations of Aurigo Masterworks. The deployment model will be based entirely on what works best for the customer. The following diagram describes the logical architecture of the Aurigo Masterworks platform. At each level in the logical software, architecture plug-ins and customer-based configuration can be injected. This allows significant configuration to be performed by internal services staff, System Integrators, and even end-users if required.



Web Tier

The Web tier is made up of standards-based browsers, which include support for Internet Explorer 10.0 and above, Microsoft Edge, Google Chrome, Mozilla Firefox and Apple Safari. Utilizing a standards-based Web based architecture provides the Agency with an easy to use and easy to train environment.

In general:

1. All data validations are performed in the Web Tier first and then the application tier
2. Dynamic dropdowns and lists are filled with data without refreshing the entire screen

3. Rich content controls are utilized, such as Trees, Tables, Popup Calendars, etc., to provide the best possible user experience

Application / Business Tier

The application / business logic tier provides the basic framework for deploying all capabilities for the Aurigo Masterworks system. It provides:

1. A role-based security framework
2. A module-based deployment environment that allows new capabilities to be added to the platform without modifying the core platform
3. A configuration framework to enable the product to be tailored to meet the Agency's needs
4. The Web Services infrastructure for all integration points
5. A messaging framework that supports integration into corporate messaging environments
6. A Workflow foundation based on Microsoft Windows Workflow Foundation that all applications leverage
7. Forms Definition and Lifecycle management integrated into the workflow foundation
8. Expression Evaluation capability allowing complex formulas to be created for use in forms and workflows

In addition to the foundation level services mentioned above, the application Tier is where all of the application functionality is deployed and instantiated. As new modules are loaded into the platform (including the core functionality of Aurigo Masterworks), the functionality lives in two places within the overall system:

- Screen Management, Navigation, Data Validation, and User Navigation live in the Application Tier
- The Business Rules, Logic, Data Access, Entity Design live in the Business Logic and Data Access Layer

Business Logic

The Business Logic layer handles all of the complex logic that is required to enable the Aurigo Masterworks system to perform its overall function. The Business Logic Layer makes extensive use of the Workflow services provided by the platform to allow each and every business process to be configured to meet the needs of the Agency. All functionality in the system is loaded using the module management capabilities of the underlying platform. When new modules are loaded, business logic modules are added to the Business Logic layer, thus extending the capabilities of the entire system dynamically.

Data Access

The Data Access layer provides the data required by the system as users and automated processes perform various actions. All access to the data store is provided through the Data Access Layer. The Data Access Layer has been architected to either support its native database, using direct SQL access, or to obtain data via Web Service based APIs. Using this architecture limits the cases where the Aurigo Masterworks platform makes duplicate copies of data in its local database when the fundamental home

of the data lies in an external system. This approach limits system maintenance activities, reduces the chances of operating on out-of-date data, and lowers the cost of maintaining the system.

API Server

The API Server is a group of well-defined Web Services that support various integration points with external applications. The API Server is called by the Data Access Layer. When configured to do so, the API Server places calls to external systems to retrieve the underlying data. In cases where real-time access to external systems is not possible, the API Server provides a cached copy of the data from the external system.

Reporting Services

The Reporting Services subsystem provides dynamic reporting services to all capabilities deployed for the system. Reporting Services is built on Microsoft SQL Reporting Services, which can be deployed on the same physical hardware as the Application Server or on separate hardware. Using MS SQL Reporting Services provides the Agency with an easy to use, configurable and scalable reporting framework that will easily meet its needs now and in the future. MS SQL Reporting Services supports dynamic creation of new reports, automatic scheduling, and programmatic access to report information.

Data Tier

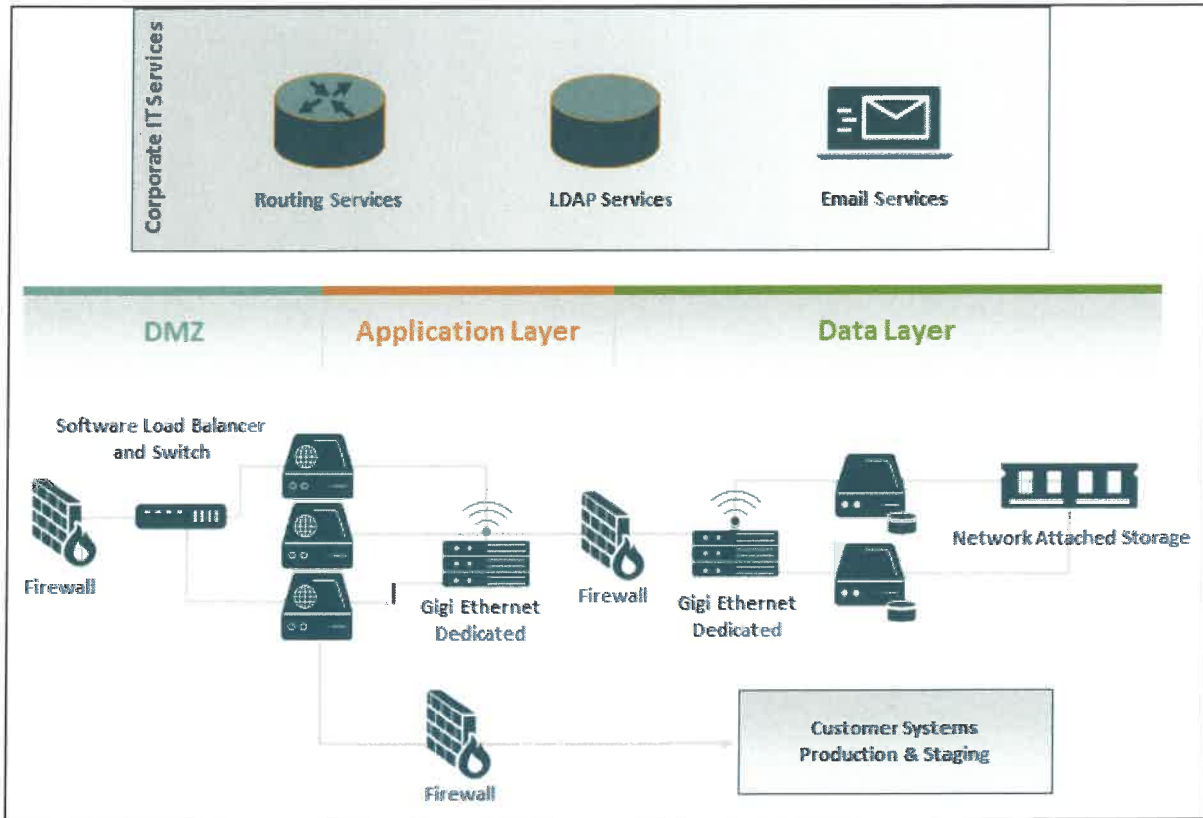
The data tier of the application is composed of an industry-leading database technology provided by Microsoft SQL Server 2014 Enterprise. The database access layer is built using standard technologies and SQL access languages and is further shielded from the application tier by the Data Access Layer of the application tier. In addition, the data tier and database supports full connectivity. For self-hosted environments, Aurigo typically proposes a clustered database server to ensure maximum uptime and optimal performance.

Aurigo Masterworks utilizes the following server software for SaaS deployments:

- Operating System: Microsoft Windows Server 2012 R2
- Database Server: Microsoft SQL Server 2014 Enterprise
- Web Server: Microsoft Internet Information Server 8.0
- Reporting: Microsoft SQL Report Services 2014

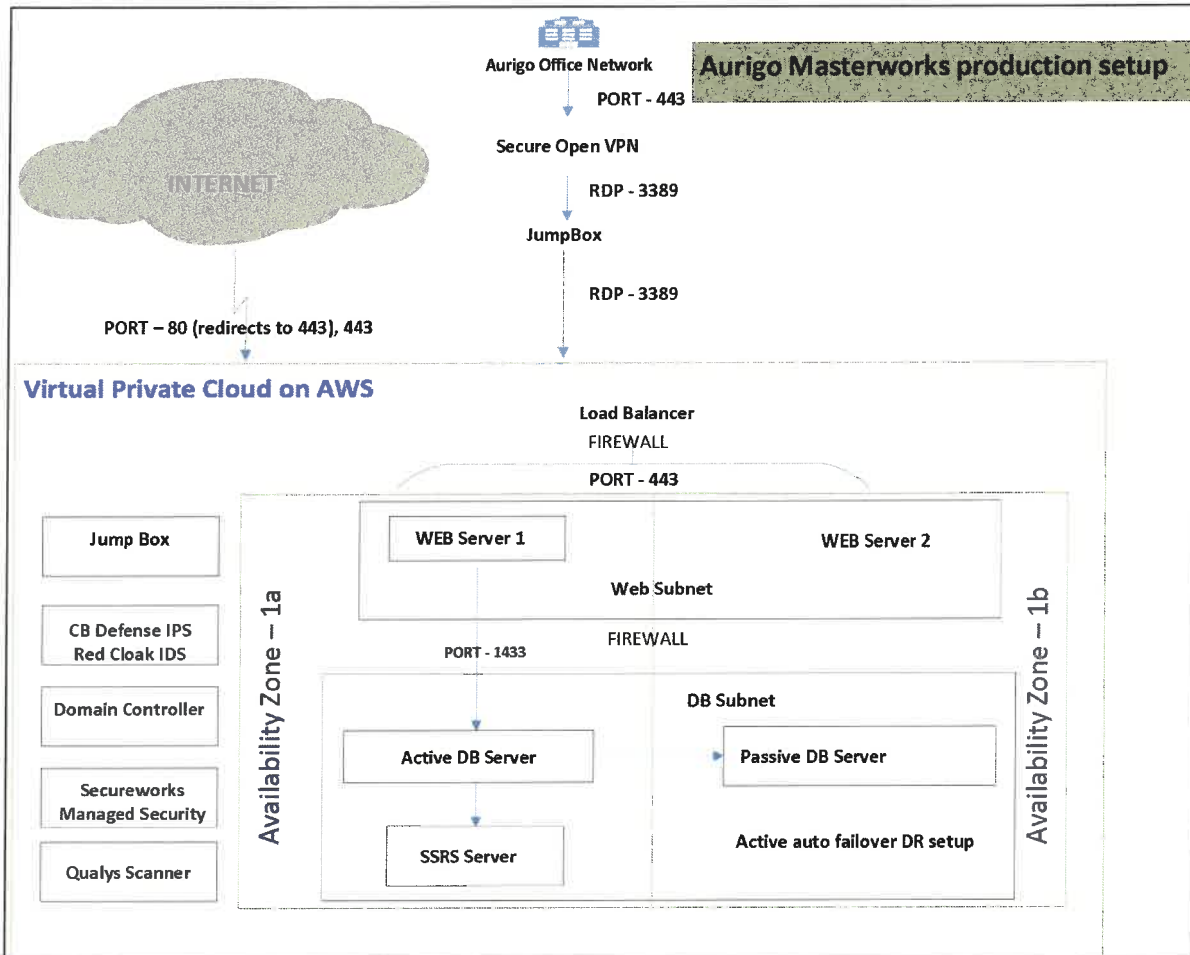
All database and operating system tools are provided by Microsoft. System interfaces are all based on Web Services (SOAP). The UI is built using HTML5.

The following exhibit provides a reference physical architecture that depicts all of the scale and security points built into the architecture. This physical architecture depicts a reasonable representation of the physical architecture of Aurigo's SaaS solution.



Aurigo Masterworks Cloud is a cloud-based solution hosted on Amazon’s AWS infrastructure, which includes an Elastic Load Balancer, Web server(s), Database server(s), and SSRS services. Amazon has the most flexible, scalable platform available and will allow Masterworks to scale to the demands of the Agency’s users.

When a user accesses Masterworks using the Masterworks URL, their request will hit the AWS Elastic Load Balancer (ELB) first over PORT 80 and 443. Aurigo configures all traffic that is sent to PORT 80 to be sent to PORT 443 by default. The ELB routes the traffic to the webserver over PORT 80. The web server calls the database server over PORT 1433. The web server also talks to the reporting services (SSRS) over PORT 80. Please see the below Hosting Architecture diagram for details.



Aurigo Masterworks Cloud is designed to be scalable both horizontally and vertically. At the web layer, Aurigo makes use of AWS ELB (Elastic Load Balancer) on top of web servers. Using the AWS ELB provides for automatic failover in case of a web server instance failure.

Web servers can be added to achieve horizontal scaling, or CPU and/or memory can be increased as required for vertical scaling. Disk space can be increased on the fly without any downtime for storage scaling. In the database layer, Aurigo makes use of Microsoft SQL Server’s Always-On High Availability Group. In case of failure of the primary database server, the secondary database server comes up automatically within a few seconds.

Aurigo will provide three environments for the Agency during and after implementation of Masterworks: The **primary environment** that the Agency will be working in during implementation is the non-production environment, often referred to as the “Staging” or “UAT” environment. This is where sprint testing will take place in addition to the final testing of the entire solution before it is deployed into production.

The **second environment** that Aurigo will deploy will be the “Training” environment which will be used by Aurigo, and later by the Agency, for training. The Training environment is also a non-production environment.

The **third environment** that will be deployed by Aurigo is the Production environment, which is the live environment that the Agency will use for day-to-day work once the solution is accepted and the cutover from the Agency's current system to Masterworks is complete.

Hosting Services Overview

Aurigo hosts Masterworks Cloud Platform on Amazon Web Services (AWS) servers in two regions of the United States. The primary AWS data center region is in North Virginia and the secondary data center region (the backup) is in Oregon. AWS provides industry-leading infrastructure and platform-level security. Details of AWS compliance status can be found at <https://aws.amazon.com/compliance/>

Each customer-facing production environment is hosted in a highly-secure VPC (virtual private cloud), which can be accessed only through a secure VPN tunnel for administrative access. For increased security, login to servers hosting each customer's Aurigo Masterworks Cloud solution is accessible only from a jump server in a specific subnet in the production VPC. All customer-facing, non-production environments such as SIT, UAT and Training are hosted in separate VPC with its own security stack and controls. Development and Test environments are hosted on a dedicated secure VPC on AWS. All these VPCs have separate firewalls with only required ports open. Each VPC has multiple subnets, with their own security controls. To ensure security, subnets hosting customer data cannot be accessed from the Internet.

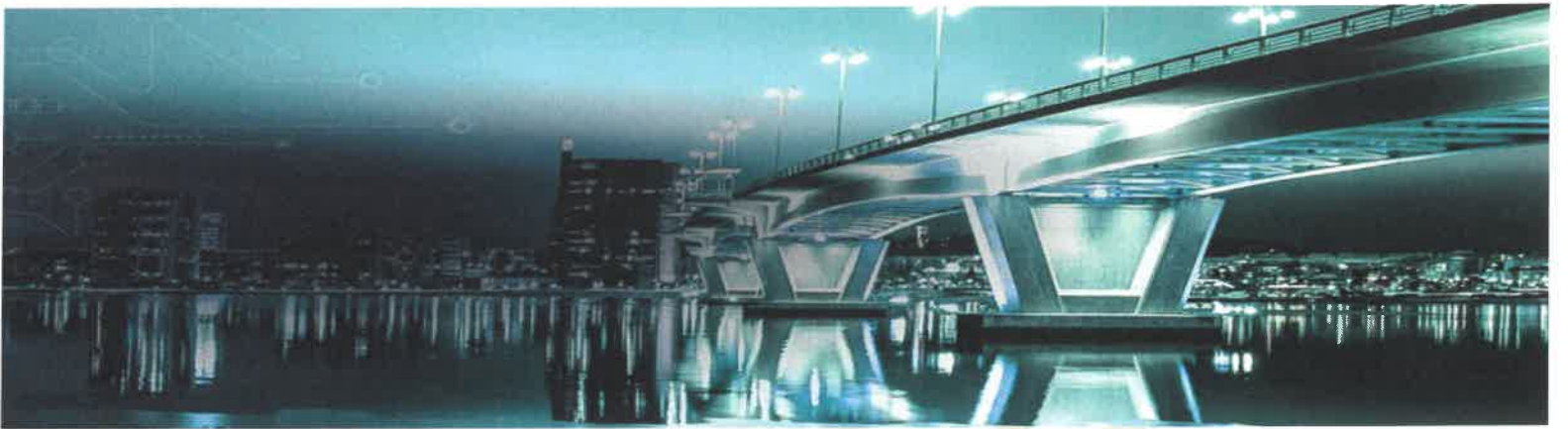
Aurigo has deployed industry-leading solutions for intrusion detection, intrusion prevention and log monitoring. In addition, periodic Qualys security scans are leveraged to identify emerging vulnerabilities. Corrective actions follow immediately to neutralize any threats identified. Aurigo uses managed security services by Secureworks (#1 managed security company) to monitor the cloud infrastructure 24/7.

Aurigo uses the NewRelic monitoring tool for monitoring all customers' applications and backend production servers. NewRelic supports monitoring the end-user application response time and highlights any application-related errors noticed by customers in the application. All data will be captured by the monitoring service on a secured connection, and alerts will be sent to the Aurigo Cloud Operations team in case any compute, memory or network capacity utilization is crossing the defined thresholds.

Aurigo has a well-formulated Business Continuity and Disaster Recovery Plan, which approaches disaster recovery on three fronts. First, solution architecture has built-in redundancies at multiple levels to protect against failures. Second, we have well-documented disaster scenarios and recovery procedures on which administrative staff is trained. Third, we perform periodic testing of disaster scenarios to prepare staff, identify gaps and implement resolutions.

Tab 10 Draft Statement of Work

Please see Aurigo's detailed draft SoW for the Agency's ROW Management System on the following fifty (50) pages.



Technical Proposal – TAB 10
Sample Statement of Work for CRFP 0803 DOT2200000002
West Virginia Department of Transportation
Right of Way Management System
Date: September 29, 2021

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1 Introduction

The purpose of this **Exhibit 1 – Statement of Work** document is to compile key delivered documents and content into one (1) document for ease of reference.

2 Overview and Business Objectives

Aurigo shall provide a Commercial-Off-The-Shelf (“COTS”) software solution and professional services for designing, configuring, and implementing a Right of Way (“ROW”) Management System for the West Virginia Department of Transportation (the “WVDOT”).

Based on the Request for Proposal No. DOT2200000002 solicitation results, the WVDOT has selected Masterworks Cloud (“Masterworks”). Aurigo shall implement the Masterworks solution in accordance with the scope outlined in this Scope of Work (“SOW”).

2.1 Goals of the ROW System

This system’s goal and intention are to manage and track all right-of-way acquisition and related activities required to support the delivery of WVDOT’s transportation program, manage ongoing property management business processes, and manage and track utility relocations and railroad agreements needed to support the delivery of transportation projects.

ID	Goals and Objectives
1	Provide the ability to support the management and tracking of the entire lifecycle of the WVDOT right-of-way acquisition processes, including project setup, parcel identification, and setup, management of acquisition activities, appraisals, negotiation, condemnation, and relocation;
2	Provide the ability to support managing and tracking property management business processes.
3	Provide the ability to support the management and tracking of consultant contract agreements and manage review/tracking of consultant invoices in support of right-of-way processes.
4	Provide the ability to support the management and tracking of the entire lifecycle of the WVDOT utility relocation processes. This includes project setup, identification, and documentation of utilities potentially impacted by the project and the nature of the impact, tracking required coordination with impacted utilities, creating relocation agreements with each utility required for the project, tracking the completion of the relocation work, tracking and supporting payment of invoices for costs to be reimbursed by the WVDOT.
5	Provide the ability to support the management and tracking of the entire lifecycle of required WVDOT railroad agreements requiring railroad coordination. This includes project setup, identification, and documentation of railroad right-of-way impacted by the project, creating railroad agreements when required, and tracking and supporting payment of invoices for costs to be reimbursed by the WVDOT.

2.2 In-Scope Project Activities

The following activities are in-scope for delivery by Aurigo to achieve the goals defined above:

- (a) Providing project leadership, project management, business engagement administration, and Aurigo team governance for business process mapping and requirements elaboration, design and specifications, solution configuration, testing, and training;
- (b) Performing iterative configurations of the system using an Agile methodology to deliver the functionality outlined in the **RFP No. DOT2200000002 WV DOT ROW Management System**.
- (c) Performing Unit testing, System Integration Testing (SIT), performance testing, and penetration security testing to ensure the configured functionality works per the documented functional and non-functional requirements;
- (d) Supporting the User Acceptance Testing (UAT) to measure user acceptance of configured functionality based on defined criteria, specifications, instructions, and test cases;
- (e) The integration and data migration of project data from in-scope systems are identified in **Section 3.1.3.3**.
- (f) The WVDOT is responsible for providing data definitions for existing systems and clean data in an agreed-upon format. Aurigo is responsible for transforming the data and importing it into the Masterworks solution. Data loads and associated frequencies will be determined during interface assessment meetings during the Business process mapping phase of the project and will be mutually agreed upon by Aurigo and the WVDOT;
- (g) Reviewing the WVDOT's current business processes to identify reengineering opportunities for improvements based on the project scope and the capabilities of the core Masterworks solution;
- (h) Developing training content, as defined in **Section 3.1.5**, to support the adoption of the ROW system;
- (i) Support the deployment of the ROW system into production (Go-Live).
- (j) Warranty support per refer Silver Support Plan section- SSA or MSA

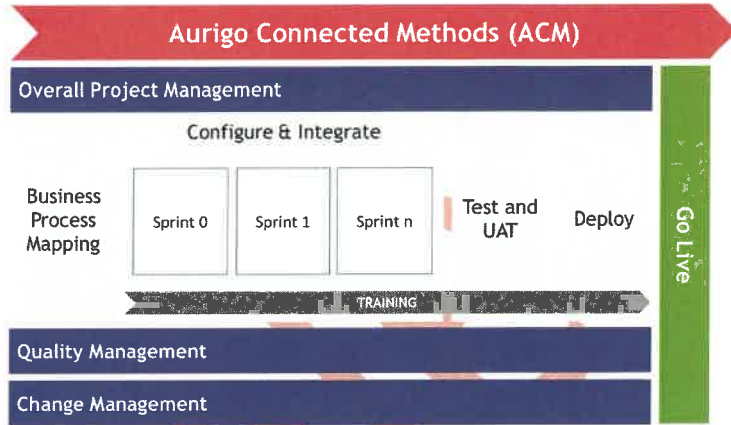
2.3 Out-of-Scope

The following activities are out of scope; however, the WVDOT may request Aurigo to perform these activities based on mutual agreement of the impacts to cost and schedule;

- (a) Integrations to any system/tools not identified in this SOW;
- (b) Customized enhancements to the core Masterworks product;
- (c) Changes to the Aurigo Connected Methodology (ACM), Aurigo's project delivery model, tools, and templates unless changes are mutually agreed upon between the WVDOT and Aurigo, and a Change Order is processed and approved to reflect schedule or cost impacts.

3 Summary of SOW Delivery Approach

Aurigo Connected Methods (ACM) is Aurigo’s proprietary methodology to deliver and support the project for its clients. Aurigo Connected Methods is Aurigo’s full lifecycle methodology for planning, delivering, maintaining, and managing Masterworks. ACM serves as a vehicle for continuous improvement, evolving based on best practices from leading-edge implementation experience and ongoing research and development. ACM equips Aurigo consultants with the tools and techniques they need to deliver comprehensive, full lifecycle solutions. ACM adopts many of the principles and best practices of the Agile philosophy while retaining the structure and project management oversight required for success. Many of the most valuable Agile Principles are reflected in the ACM methodology, including:



- Delivering working software frequently
- Providing continuous attention to technical excellence and good design
- Valuing client collaboration
- Regularly identifying risks and developing mitigation plans
- Performing integration and regression testing
- Integrating earlier

Aurigo proposes a hybrid method of delivering services to the WVDOT. Key Aurigo personnel may travel onsite in accordance with Section 7.3. Other Aurigo personnel who perform tasks to deliver the WVDOT’s solution will work from Aurigo’s offices. The Aurigo Project Manager will directly manage the personnel.

Aurigo’s proposed Project Schedule depends upon the WVDOT’s cooperation in following the agreed-upon project plan. Aurigo’s implementation plan is based on years of implementing projects similar to ROW. If WVDOT determines that Aurigo’s proposed ACM methodology, tools, and templates don’t meet their expectations, the Change control process will be initiated. The Change Control process may result in schedule changes and increased project implementation costs.

ACM defines the following project phases for a successful deployment. If an overall deployment is divided into separate production releases, then phases 2 through 7 are independently repeated for each release.

Project Delivery Phases		
Phase 1	Project Planning	Develop project plans, prepare for Phase 2, and hold a kickoff meeting with all stakeholders.

Project Delivery Phases		
Phase 2	Business Process Mapping (BPM)	Create the configuration specification RACI. Conduct business process mapping sessions with SMEs to elaborate on the business requirements. Approved configuration specification(s) Approved Configuration specifications to be used in Solution configuration.
Phase 3	Solution Configuration	Configure Masterworks to meet the requirements in the Requirements Traceability Matrix and per approved configuration and technical specifications.
Phase 4	Solution Testing	The solution testing phase incorporates a set of testing that will include the following: <ul style="list-style-type: none"> • System Integration Testing • Performance Testing • Penetration Security Testing • User Acceptance Testing
Phase 5	Training	Plan, Design, Develop, Deliver and support Training activities for ROW implementation. Training delivery comprises System Administration training, and End User Training delivered using a 'Train-the-Trainer' (TTT) approach, with Aurigo delivering the first class and WVDOT trainers delivering the rest.
Phase 6	Production Release (Go-Live)	Masterworks production system is available for the client's use.
Phase 7	Project Closeout and Transition to Support	Closeout deliverable requirements, final invoices. Sign-off final system acceptance form. Transition the client to production support.

Each of the phases mentioned above is detailed below:

Project Planning

The Project Planning phase typically starts 4-6 weeks after the contract execution. During the Project Planning phase, Aurigo will work with the designated members of the client's team to plan the overall approach to the project. This phase also develops the overall governance approach for the project, the testing approach, the training approach, etc., that guides the team throughout the project. This phase of the project is part of Aurigo's hybrid agile approach defined above. It provides many traditional aspects of project management that client organizations require. All project management processes that will be used throughout the project are defined at this time. Please see above for our expectations for how an implementation project will be run. Any exceptions to how Aurigo runs its implementation projects may require change orders and potentially increase costs.

Deliverables

- Process documents that will be used to govern the project
 - Requirements Traceability Matrix

- Project schedule
- Change Control plan
- Project SharePoint site setup

Business Process Mapping

During the business process mapping phase, Aurigo will work with designated members of the WVDOT team (the SMEs) to further refine the needs and requirements specified in the scope of services. The WVDOT and Aurigo may jointly decide to modify and reengineer some of the existing processes the client follows based on better functionality and ease-of-use features available in the Masterworks solution and the industry best practices proposed by Aurigo consultants. As mentioned above, this project phase is part of the hybrid agile approach that Aurigo utilizes to deliver projects to its clients. In a pure agile environment, there would be no independent BPM phase. To ensure that the requirements are well understood and to reduce risks to the project, Aurigo will elaborate a majority of the requirements upfront before the configuration process commences. Part of the business process mapping will include how existing processes are configured in Masterworks for our clients.

Deliverables

- Configuration Specifications and RACI documents will be used for tracking purposes until the requirements are delivered.
- Any additional configuration specification documents that further detail each requirement

Solution Configuration

The Solution Configuration phase is intended for Aurigo to configure or develop and then deploy the new products/features specified in the final set of requirements elaborated during the Business Process Mapping sessions. Aurigo will configure the software during this phase to meet the needs and processes documented in configuration and technical specifications.

Aurigo delivers its solutions iteratively throughout this phase. Our normal iteration cadence is three (3) weeks. At the beginning of each iteration, Aurigo will identify the requirements that will be delivered, configure the solution, and deliver an updated software environment for the WVDOT to access. The intent of the iteration is not to do a final system acceptance or testing. Rather, the goal is to garner feedback on the features and identify any gaps in the delivered capabilities to the intended needs as documented in configuration and technical specifications. If new requirements are identified during an iteration, the potential changes to the project's scope will be discussed with the client and, if necessary, will be taken through a change control process.

Aurigo will continue to iterate through the solution configuration phase until all the client's requirements outlined in the scope of services are delivered satisfactorily.

Deliverables

- The developed and tested software configurations
- Integration components for integrating Masterworks with the WVDOT's external systems
- Detailed instructions that the client can use to review the iteration

Solution Testing

The client will perform the Solution Testing phase of the project to assess the delivered solution before moving it into production.

Integrations with the WVDOT's existing third-party systems and to-be-determined third-party systems will also be rigorously tested jointly by the WVDOT and Aurigo at this point of the project. Aurigo aims to develop a seamless Enterprise experience as the WVDOT moves forward with its new ROW Solution.

Data migration will also be tested during this period using a copy of the data to be migrated to determine the success of all data migrated to the ROW and ensure any edge cases are handled appropriately. Data migration will be finalized and performed immediately before the system go-live to ensure the most up-to-date data is brought over from the current system into ROW.

During UAT, the client will review all solution deliverables submitted by Aurigo. The testing should provide end-to-end business scenario testing from an end-user perspective. The goal of UAT is to verify that the business processes defined during the BPM phase of the project, plus the requirements documented in approved configuration or technical specifications, correctly convey what the client expects from the solution. Any deviations from the defined requirements found at this stage will trigger a change control process.

Deliverables

- System Integration Testing
- Performance Testing
- Penetration Security Testing
- User Acceptance Testing

Overall Deliverables for all Testing Activities

- Work with the client to answer questions and provide clarifications and assistance
- Resolve outstanding software issues
- Rework required capabilities, if needed, including integrations, forms configuration, workflow specifications, and report requirements

Training

Aurigo understands that training is not just about imparting how-to instructions and handing out user manuals in a classroom setting. It is also about helping clients manage the change from an existing process to a fully automated newer environment. The training approach Aurigo uses to train its clients is geared toward meeting the WVDOT's specific needs, and it incorporates the best practices learned while delivering the Masterworks solution.

Training Methodology

Aurigo proposes using its standard training methodology as detailed below. The training approach is adjusted per client to align with Section 2. Aurigo's training approach ensures a well-trained workforce supported by a strong training program.

Stage 1 - Analysis – Aurigo performs high-level learning needs analysis to understand the WVDOT’s training needs. This is used to finalize the course curriculum and to ensure alignment with the overall project goals.

Stage 2 - Training Design – The instructional strategies are identified during the training design phase. Aurigo’s existing training templates will be utilized for the development of the training material.

Stage 3 - Training Development (Training Material) – The actual training content is developed during this phase. Aurigo typically develops training materials by leveraging the existing Aurigo standard training material and incorporating any adjustments to meet the WVDOT’s solution. The training material includes PowerPoint presentation slides and a training manual (instructions for hands-on activity). System documentation and user procedures referred to as “End User Help” and “System Administration Help” (in the form of online Help) will also be developed during this phase and will be made available to trainees as reference material.

Stage 4 - Training Deployment & Delivery – During this phase, key planning and training delivery activities are conducted. It includes finalizing training facilities, assessing logistics, and identifying the trainers and participants. Training participants’ calendars are reserved by sending out training invites in advance to ensure maximum participation.

Training Approach

Aurigo will provide training as agreed upon as defined in Section 3.1.5 of this document.

Quality Assurance

The quality management approach for implementing the ROW will ensure quality is planned to assess the process and product quality. The project will use project quality measurement reports as a tool to communicate any quality risks or issues that arise.

The following quality management approach elements are included in this approach:

- **Quality Planning** – Includes determining quality standards, identifying quality metrics, creating quality checklists, and conducting problem remediation activities.
- **Quality Assurance (QA)** – Used to manage and deliver the project’s product or service effectively and that the quality requirements are fulfilled by quality processes span throughout the project lifecycle.
- **Quality Control (QC)** – Focused on the products and deliverables of the project. It is the process of monitoring project deliverables to verify that the deliverables are of acceptable quality, complete, and correct. It includes the inspection, analysis, and actions required to ensure quality output.
- Tools and software used to support quality management include but are not limited to:
 - Software Quality Tools
 - Microsoft Office Tools (Project, Word, Excel, SharePoint, and PowerPoint)
 - Project Management Tools (not limited to)
 - Project Schedule
 - Project Site
 - Project Calendar
 - Action Items

- Feedback Log
- Risk Register
- Issue Log
- Decision Log
- RTM
- **Problem reporting and resolution plan** – The project SharePoint site will contain the reporting data and the reports produced as part of quality activities and reviews. The records will be maintained through the implementation life cycle of the project.

3.1 Project Stages / Phases

Aurigo has defined the phases and deliverables for each phase below:

3.1.1 Planning

The project planning phase is when Aurigo and the WVDOT set up the project foundation for success. There are two primary threads of activities during this phase. The first thread involves the Aurigo and WVDOT Project Managers collaborating on how the project will be managed. The second thread involves Aurigo analyzing the WVDOT's requirements and preparing for the Business Process Mapping phase. project planning phase deliverables include:

- 3.1.1.1 Kickoff Presentation
- 3.1.1.2 Project Management Plan and sub-plans
- 3.1.1.3 Project Schedule
- 3.1.1.4 Project Site Setup
- 3.1.1.5 ROW Team Overview on ACM and Project Management Tools
- 3.1.1.6 Requirements Traceability Matrix
- 3.1.1.7 Business Process Mapping Sessions Plan

Descriptions, details, frequency, and acceptance criteria for each deliverable are below.

3.1.1.1 Software Development Lifecycle ("SDLC") Methodology

- (a) Aurigo Connected Methods ("ACM") Overview for All Delivery Phases
- (b) Aurigo shall leverage its highly collaborative and comprehensive methodology and approach to design, configure, test, and implement the ROW. ACM includes Aurigo Connected Methods Toolkits and Delivery Architectures. Aurigo Connected Methods (ACM) is:
 1. A proven set of processes, deliverables, and techniques that enable Aurigo teams to define and deliver projects;
 2. A comprehensive collection of methods that supports deployment of the Aurigo Masterworks solution;
 3. Focused on fundamentals such as requirements management, testing, training, quality assurance, and project management.
- (c) Each software development deliverable phase will include at minimum the following activity performed by Aurigo:

1. Project Planning
2. Business Process Mapping - Further elaboration of the WVDOT's business requirements
3. Solution Configuration - Configure the software to meet the WVDOT's functional and non-functional requirements
4. Solution Testing - Aurigo conducts required system testing, and the WVDOT performs user acceptance testing on the delivered solution
5. Training - Train-the-Trainer and System Administrator training for final deployment
6. End-User Deployment - Roll out of the solution to end-users
7. Go-Live - Full deployment for the WVDOT

3.1.1.2 Project Management Deliverables – Completed during Project Planning Phase

3.1.1.2.1 Kickoff Presentation

(a) Description

This deliverable is a presentation to familiarize all team members with the project and ensure a baseline understanding between the WVDOT and Aurigo. The presentation includes the following topics:

1. Project Overview
2. Goals & Objectives
3. Project Milestone Schedule (high level)
4. Processes, Tools, and Delivery Methodology
5. Deliverables
6. Project Team, Roles & Responsibilities
7. Keys to Success
8. Next Steps

(b) Frequency

1. The deliverable is due sixty (60) calendar days after contract execution
2. The kickoff presentation material shall be provided to the WVDOT three business days before delivering the presentation. The WVDOT may review it, confirm the content, and request revisions if necessary.
3. Due to the COVID pandemic, the Aurigo Project Manager and Business Analyst anticipate making the presentation remotely using Zoom or MS Teams.

3.1.1.2.2 Project Management Plan

(a) Description

The Project Management Plan shall cover the following areas at a minimum:

1. Project Overview - Describes the project scope, assumptions, and constraints.
2. Project Organization - Describes the project structure, stakeholders, roles, and responsibilities.
3. Project Schedule Management - Describes the tools, techniques, work activities, and processes for maintaining and reporting on the project schedule throughout the project life cycle. This will be included in the PMP.
4. Risk and Issue Management - Describes the risk and issue management process and how this integrates with processes established by the WVDOT. This will be included in the PMP.



5. Communication Management Plan - Establishes a consistent method for communication planning, management, methods, and activities needed to ensure timely and appropriate collection, generation, dissemination, storage, and disposition of project information. The Communication Management Plan shall detail the varying levels and needs of the project's stakeholders for information regarding the project, status, accomplishments, impact on stakeholders, etc. The Communication Management Plan shall define the communication vehicles, target stakeholders, scope, and frequency of the project's communications vehicles. This will be a separate sub-plan.
6. Document Management Plan - Describes the approach used to manage the documents and project artifacts collected by and created by the project team. This will be included in the PMP.
7. Requirements Management Plan - Describes the approach used to manage business and system requirements throughout the project's life cycle. This will be included in the PMP.
8. Change Management Plan – Describes the change control process and the approach used to manage any changes identified throughout the implementation phase.
9. Quality Management Plan - Establishes a consistent method and definition of activities, resources, and standards needed to manage product and service performance. Includes the approach to measuring and reporting project performance (e.g., service level requirements) and assessing, monitoring, and reporting the required product and service performance outcomes. This will be included in the PMP.

(b) Frequency

1. The deliverable is due sixty (60) calendar days after contract execution.
2. The Aurigo Project Manager is anticipated to travel onsite one or two times, with prior approval from the WVDOT Project Manager (subject to change due to COVID-19 travel restrictions and travel criteria in Section 7.3)

(c) Acceptance Criteria

1. Aurigo shall provide and maintain the Project Management Plan, which must include all identified minimum criteria.
2. Aurigo shall validate with the WVDOT that the methodologies and details are aligned with the WVDOT's expectations.
3. Aurigo shall implement a sustainability plan to maintain the Project Management Plan.
4. The WVDOT shall review and approve the final documents. Aurigo will update the plan based on review comments from the WVDOT. Multiple iterations may be required before a final version is available.

3.1.1.2.3 Project Schedule

(a) Description

The Project Schedule includes tasks, dependencies, timeframes, deliverables, and demands on project resources. The plan shall be in Microsoft Project and include:

1. A milestone calendar schedule, provided in Excel, showing the high-level phases from Project Planning to Go-Live
2. A project schedule to include tasks, durations, dependencies, and resources
3. A detailed schedule for key activities, including project tasks, deliverables. A detailed schedule will include at a minimum the following:

- i. A logical sequence of tasks and deliverables
- ii. A clear narrative definition of each task and deliverable
- iii. A specific target completion date for each task and deliverable
- iv. Resource loading
- v. Task and deliverable relationships and dependencies
- vi. Identification of the critical path for the work plan to determine the impacts of any schedule slippage.
- vii. All tasks associated with the delivery of the solution.

(b) Frequency

- 1. The deliverable is due sixty (60) calendar days after contract execution.
- 2. Change control process will be required for formal approval of changed baseline dates.

(c) Acceptance Criteria

- 1. Aurigo PM, with the support from the WVDOT PM, shall provide and maintain the Project Schedule that includes for the full program:
 - i. Milestones to be achieved;
 - ii. Deliverables;
 - iii. Activities performed by the WVDOT and Aurigo;
 - iv. Critical path;
 - v. Dependencies
- 2. Aurigo shall ensure the project schedule is aligned with this agreement to deliver the project successfully.
- 3. The WVDOT shall review and approve the baselined project schedule. Multiple iterations may be required before a final version is available.

3.1.1.2.4 Project Site Setup

(a) Description

Aurigo will set up a SharePoint project site (the "Project Site").

- 1. The Project Site will track and manage the following but not limited to:
 - vi. Project Documentation
 - vii. Requirements Traceability Matrix (RTM)
 - viii. Decision Register
 - ix. Risk Log
 - x. Issue Log
 - xi. Action Items Log
 - xii. Feedback Log: All client feedback is captured in a single log, the Feedback Log. Feedback is categorized as either bug, clarification, solution change request, product change request, or enhancement. Once categorized, the feedback is managed and dispositioned accordingly.
- 2. Aurigo will provide all WVDOT project team members access to the Project Site at all times
- 3. Aurigo and WVDOT will work together during the Planning phase to finalize the Project Site design.
- 4. Aurigo PM will work with WVDOT PM to ensure SharePoint Lists, Libraries, Views, Metadata, Pages, and the Project Site are configured so that WVDOT can properly capture and manage information to manage the project effectively.

- (b) Frequency - The deliverable is due forty-five (45) calendar days after contract execution.

3.1.1.2.5 ROW Team Overview on ACM and Project Management Tools

(a) Description

Aurigo shall provide an initial overview for the WVDOT before starting the assessment and design activities for the Masterworks system. The overview session will help educate the WVDOT on Aurigo's SDLC methodology ACM, tools used to manage the project, and the agile methodology to configure and review the system.

(b) Frequency

1. The deliverable is due sixty (60) calendar days after contract execution.
2. Overview to be provided by Aurigo PMO Manager along with Aurigo Project Manager and Business Analyst.
3. Overview to be provided virtually after the project Kickoff meeting (due to COVID-19 travel restrictions).

3.1.1.3 Business Analysis Deliverables

3.1.1.3.1 Requirements Traceability Matrix ("RTM") Setup and Analysis

(a) Description

1. Aurigo Business Analysts will load all the WVDOT's requirements into the Project Site's Requirements Traceability Matrix. The RTM will represent 100% of the requirements that Aurigo must fulfill to close the project.
2. No additional requirements will go in the RTM without an approved Change Order.
3. The Aurigo Business Analysts will hold internal meetings to analyze all the WVDOT's functional and non-functional requirements to:
 - i. Identify and log elaboration questions to be asked during the Business Process Mapping sessions.
 - ii. Start mapping the requirements to Masterworks.
 - iii. Develop the Business Process Mapping session agendas.

(b) Frequency

The deliverable is due ninety (90) calendar days after contract execution.

(c) Acceptance Criteria

The WVDOT will validate that all functional and non-functional requirements are logged in the RTM and reflect the entire scope of services delivered per the contract.

3.1.1.3.2 Business Process Mapping Sessions Plan

(a) Description



1. The WVDOT must provide Aurigo with functional requirements, non-functional requirements, and report examples.
2. Aurigo will conduct Business Process Mapping & Elaboration sessions to gain additional information and clarification around the WVDOT's requirements.
3. Additional information could include as-is business processes, the WVDOT's business roles, and elaboration on requirements.
4. Aurigo staff will analyze the WVDOT's requirements and develop a proposed plan for sessions, including what subject matter experts need to attend, how long the sessions should be, when the sessions should take place, and what the agendas will be.
5. The WVDOT will be responsible for scheduling the required sessions with the appropriate subject matter experts.

(b) Frequency

1. The deliverable is due no later than sixty (60) calendar days after contract execution
2. Aurigo will deliver the plan as soon as possible so that the WVDOT has at least two (2) weeks' notice before the sessions begin
3. Sessions typically are six (6) hours per day for four (4) or five (5) days and involve multiple SMEs. Participants vary from day-to-day and even within a day. The agendas will determine who needs to attend. Training will be performed onsite or virtually based upon prevailing COVID-19 or similar health-related emergency protocols and Federal, State, and local regulations in place at the time of the Contract Start.

(c) Acceptance Criteria

1. Complete Business Process Mapping Session plan and agendas
2. The WVDOT shall review and approve the Session plan. Aurigo will update the plan based on review comments from the WVDOT. Several iterations may be required before a final version is available.

3.1.1.3.3 Requirement Traceability Matrix Review Meetings

(a) Description

1. Aurigo will hold Requirement Traceability Matrix Review meetings where Aurigo and the WVDOT will review and update the status of requirements until all requirements are closed
2. At the beginning of a project, some requirements are met with out-of-the-box functionality and can be demonstrated, confirmed, and closed immediately.
3. If Aurigo determines some requirements can be demonstrated and closed, an RTM review meeting will be scheduled with the WVDOT

(b) Frequency

RTM review meetings setup is due ninety (90) calendar days after contract execution

(c) Acceptance Criteria

RTM review Meeting scheduled, and the WVDOT agrees on the status for each requirement

3.1.1.4 Project Management Deliverables – Ongoing

3.1.1.4.1 Project Schedule Updates

(a) Description

Aurigo will maintain, monitor, and report the project progress in the project schedule.

(b) Frequency

1. Project Schedule updated weekly to reflect changes and actual progress.
2. Change control process will be required for any changes to the baselined dates.

3.1.1.4.2 Risk and Issue Management

(a) Description

Aurigo and WVDOT shall identify, escalate, analyze, and manage risks that jeopardize achieving milestones, including:

1. Prioritize (based on probability and impact);
2. Develop risk mitigation and remediation strategies.

(b) Frequency

1. Risks and Issues will be logged in the project site as they come up
2. The project team will review risks and Issues at the weekly project status meetings
3. Top risks will be documented in weekly status reports

3.1.1.4.3 Requirements Traceability Matrix (RTM) Updates

(a) Description

Aurigo will log and track each functional and non-functional requirement in the project RTM:

1. Progress traceability from requirement to specification to sprint to test cases will be tracked
2. Each requirement will have a status tracking it from Open to final disposition.
3. Requirement dispositions include either:
 - a. **Ready for Review:** Meaning the requirement is met and awaiting WVDOT decision
 - b. **Accepted:** Meaning the requirement has been completed and accepted by WVDOT
 - c. **Canceled:** Meaning WVDOT decided the requirement is no longer applicable, for whatever reason, and is canceling the requirement. Aurigo will take no action on Cancelled requirements.
 - d. **Future Release:** Meaning these requirements were marked as coming in Future Releases of Masterworks in the RFP response. These requirements are not expected to be delivered during this project implementation. However, Aurigo will coordinate with WVDOT to deliver these requirements, at no additional cost, post-project closeout, when the features become available.

Disposition of all requirements represents that Aurigo has concluded all actions to WVDOT's satisfaction, and the project can move to Closeout.

(b) Frequency

1. RTM will be updated regularly as progress towards meeting requirements is made

2. At a minimum, Aurigo and the WVDOT will hold RTM review meetings after each phase (i.e., Project Planning, Business Process Mapping, etc.).
3. RTM review meetings can also be held at logical milestones as agreed upon by Aurigo and the WVDOT. For example, Aurigo could schedule an RTM review meeting with the WVDOT to update requirement status in the RTM after an interface, business process, or testing is complete.

3.1.1.4.4 Weekly Status Meeting and Reporting

(a) Description

Aurigo is responsible for communicating a weekly status of project progress, risks, issues, and Change Orders. The Weekly Status Report shall include:

1. Status of project health (scope, budget, schedule)
2. Status of work completed against the Project Schedule
3. Actual/projected Project schedule dates versus baseline Project schedule milestone dates
4. Projected completion dates compared to approved baseline key dates
5. Recovery plan for all work activities not tracking to the approved schedule
6. Key activities completed or milestones achieved
7. Key Activities Planned for the next reporting period
8. The WVDOT's responsibilities for the next reporting period
9. Status on escalated risks and issues (including schedule and budget), requiring collaborative resolution
10. Disposition of escalated or critical issues and risks
11. Status on change control requests
12. Important decisions made and still need to be answered
13. Record and status on action items

(b) Acceptance criteria

1. Aurigo shall conduct weekly project status meetings to discuss items in the Weekly Project Status Report.
2. Aurigo shall facilitate such meetings, and both the WVDOT and Aurigo will provide the necessary supporting documents for effective communication and discussion.
3. The WVDOT Project Manager, and Aurigo Project Manager, will review and agree on all project status reports. If there is a discrepancy between the project managers, the Status Report will call that out.

3.1.2 Business Process Mapping

The primary deliverables of the Business Process Mapping phase are Configuration Specifications (CS) approved by the WVDOT business owners. It will contain all the details required to configure Masterworks to meet the WVDOT's requirements fully. To produce approved Configuration Specifications, Aurigo requires Business Process Mapping sessions to gain additional information on each requirement, map out the CS's required to configure the system, and identify business owners and subject matter experts (SME's) for each specification so that the project team knows who approves each specification. The Business Process Mapping phase deliverables include:

- (a) 3.1.2.1 Business Process Mapping
- (b) 3.1.2.2 Configuration and Technical Specification RACI
- (c) 3.1.2.3 Configuration Specifications)
- (d) 3.1.2.4 Technical Integration and Data Migration Specifications

Descriptions, details, frequency, and acceptance criteria for each deliverable are below.

3.1.2.1 Business Process Mapping Sessions

(a) Description

1. Aurigo shall facilitate sessions with the WVDOT subject matter experts. The purpose of these sessions is to:
 - a. Validate and elaborate the solution requirements as described in the RFP response.
 - b. Analyze existing as-is business processes to understand the key gaps and bottlenecks in these processes to inform to-be process design.
2. Information from these sessions shall help Aurigo produce:
 - i. Validated and elaborated functional and non-functional requirements, including security requirements and enterprise security policies.
 - ii. This may include the addition, modification, and deletion of requirements deemed appropriate by the WVDOT staff.
 - iii. Additional requirements (if any) will be logged in the Change Request log. The WVDOT can review the SME's change requests and determine if they want Aurigo to provide a cost and schedule estimate as the first step in determining if a Change Order is required. Alternatively, the Change Request will be deferred, possibly for later consideration in this project or for a future system enhancement project.
 - iv. Draft to-be designs via Configuration Specifications, which are based on industry best practices and leverage the capabilities of the selected ROW software
 - v. Microsoft Visio diagrams, included in Configuration Specification, and supporting narrative text in Microsoft Word
 - vi. The input of all formal requirements into the requirements traceability matrix where the solution requirements are maintained and managed throughout the project's life using the processes and tools established in the Requirements Management Plan.

(b) Frequency

1. The session's duration and frequency will be determined in the Project Planning Phase.
2. Typical sessions duration spans 3 to 6 weeks, depending on SME availability.

(c) Acceptance Criteria

1. The session plan is defined and executed
2. Session detailed Meeting Notes and Session summary
3. Reference document uploaded to the Project Site
4. Updated Requirements Traceability Matrix
5. Updated Risk and Issues Log
6. Updated Change Request Log (If applicable)

3.1.2.2 Configuration and Technical Specification RACI

(a) Description

1. Aurigo will provide a Configuration Specification RACI listing all the specifications planned along with a RACI grid for the WVDOT to denote who will have the authority to approve the specification and the SME's that will review the specification.
2. For example, a specification for GIS integration may only need to go to the GIS SME's for review and approval. This process allows for specifications to be reviewed and approved by the appropriate WVDOT representatives quickly.

(b) Frequency

1. Created at the end of the Business Process Mapping sessions
2. Updated with the status of each specification as they are being drafted, reviewed, and approved.

(c) Acceptance Criteria

1. Configuration Specification RACI filled in with specification's approvers

3.1.2.3 Configuration Specifications

(a) Description

The Configuration Specification documents expand upon the solution architecture by defining the detailed mechanisms and approaches to implement the technical and functional requirements of the ROW. The specification shall include, but is not limited to, the following:

1. Screen mockups
2. Approval workflow design and workflow/process flow diagram(s)
3. Application configuration specifications
4. Business rules
5. Roles and related permissions
6. Email Notifications
7. Data Dictionary
8. Requirements Traceability that depicts the mapping of functional, non- functional, and interface requirements to the specifications.

Once Configuration Specifications are drafted, Aurigo will:

9. Plan and facilitate to-be design sessions with key stakeholders outlined in FS RACI to review and validate the proposed to-be designs in the Configuration Specifications. Plan and facilitate to-be design sessions with key stakeholders outlined in Specification RACI to review and validate the proposed to-be designs in the Configuration Specifications.
10. Update and finalize the to-be designs based on stakeholder input

(b) Frequency

To be determined after Business Process Mapping Sessions

(c) Acceptance Criteria

Approved Configuration Specifications to be used to configure Masterworks to meet the WVDOT's requirements. Aurigo will update the specification based on review comments from WVDOT. A couple of iterations may be required before final versions are available.

3.1.2.4 Technical Integration and Data Migration Specifications

(a) Description

1. These specifications document the requirements for integration and data migration. The WVDOT and Aurigo will jointly develop the specifications. They will identify:
 - i. source to target data mapping
 - ii. data validation rules
 - iii. data transformation requirements
 - iv. security requirements
 - v. bulk data load processes
 - vi. interface methods
 - vii. Exception process handling (e.g., the WVDOT will identify the source, Aurigo shall identify the target)
2. Data Dictionary for target - The target data dictionary should be the same format as the source.

(b) Frequency

One specification per integration and data migration is listed in **Table 1 – WVDOT Integration Plan** and **Table 2 – WVDOT Data Migration Plan**.

(c) Acceptance Criteria

Approved Technical Specifications. Aurigo will update the Technical Specifications based on review comments from WVDOT. A couple of iterations may be required before final versions are available.

3.1.3 Solution Configuration

The Solution Configuration phase is when Aurigo configures Masterworks to meet the WVDOT's functional and non-functional requirements documented in the RTM and further detailed in the specifications. Aurigo delivers the solutions iteratively throughout this phase. Our normal iteration cadence is three (3) weeks. At the beginning of each iteration, Aurigo will identify the requirements delivered, configure the solution, and deliver an updated software environment for the WVDOT to review during a Sprint Review meeting. The intent of the iteration is not to do final system acceptance or testing but to verify the solution is meeting requirements as documented in the RTM and specifications. If any updates are warranted, e.g., a bug identified or missed requirement, they will be documented in the Sprint Feedback Log and planned for delivery in future iterations. If a new scope item is identified during an iteration, it will be logged in the Change Request Log and follow the agreed Change Management process. Aurigo will continue to

iterate through the solution configuration phase until all requirements are delivered satisfactorily to the WVDOT.

The Configuration Phase deliverables include:

- (a) Configured Solution
- (b) Sprint Feedback Logs
- (c) Updated Change Request Log (if-applicable)

Descriptions, details, frequency, and acceptance criteria for each deliverable are below.

3.1.3.1 Configured Solution

- (a) Description
 - Aurigo delivers the solution in iterations so that users can validate functionality as the project progresses and provide feedback.
- (b) Frequency
 - Sprints delivered every three (3) weeks
- (c) Acceptance Criteria
 - 1. Sprint reviewed by SME's and DOT's project team
 - 2. The WVDOT logs sprint feedback items in the project site - Feedback Log

3.1.3.2 Sprint Feedback Logs

- (a) Description
 - 1. Each iteration of the solution is called a Sprint
 - 2. The WVDOT reviews each sprint to verify it is being configured per specifications
 - 3. User feedback is logged in the Sprint Feedback log
 - 4. WVDOT typically logs feedback. Aurigo may log feedback on an as-needed need basis.
 - 5. Feedback is analyzed and then classified by the Aurigo Business Analyst as either a bug, clarification, product enhancement request, solution change request, or scope change
 - 6. Classifications are defined as follows:
 - i. **Bug** - Solution configuration is not functioning per approved specifications or out-of-the-box functions
 - ii. **Clarification** – A response from Aurigo to the WVDOT is required to close the clarification feedback.
 - iii. **Product Enhancement Request** - Feedback requesting changes/enhancements to the Masterworks product. Professional Services cannot make product enhancement changes. However, feedback will be passed onto the Product Development Team and logged into the Masterworks Idea Portal for consideration in the Masterworks Product Roadmap.
 - iv. **Solution Change Request** - The WVDOT requests Aurigo to change a previously approved solution configuration specification. Solution Change Requests will be

logged in the Change Request Log (see Section 3.1.3.2.1) and tracked to their approved closure

- v. **Scope Change** - The WVDOT requests a scope change. The new requirement is not part of the original scope of work. Scope change requests will be logged in the Change Request Log (see Section 3.1.3.2.1) and tracked to their approved closure.

7. All feedback is captured, analyzed, and tracked to closure

(b) Frequency

Updated after the Sprint Review sessions with the WVDOT

(c) Acceptance Criteria

Feedback logged, analyzed and disposition planned.

3.1.3.2.1 Updated Change Request Log (if-applicable)

(a) Description

1. During sprint reviews, SME's have a chance to touch and interact with Masterworks
2. At times, users request new features or functions that were not part of the original scope of the project
3. All change requests will be captured for review in the Change Request Log
4. Aurigo and the WVDOT will review change requests, and the WVDOT can decide if any further action, such as requesting a cost and schedule estimate, is warranted or if the change request will be deferred.

(b) Frequency

If-applicable - updated after the Sprint Review sessions with the WVDOT

(c) Acceptance Criteria

Change request logged, analyzed, and disposition planned.

3.1.3.3 Integration and Data Migration Services

An Aurigo System Integration Specialist will work with the WVDOT's SMEs during the Business Process Mapping phase to develop the functional and technical requirements for integrating Masterworks with the WVDOT's external systems. Web Service based Application Programming Interfaces (APIs) will integrate seamlessly with the WVDOT's existing IT infrastructure. The Web Service based APIs can be consumed by any application and use industry-standard protocols such as SOAP, XML, and HTTP. Aurigo will perform System Integration Testing as part of the delivery lifecycle. As part of SIT, the delivered solution is subjected to an isolated testing environment with test versions of all systems that have integrations. The SIT provides point-to-point testing of every interface that has been developed as part of the release. The scenarios that will be run are geared to testing data boundaries, conversion, validation rules, etc. The key deliverable of the SIT testing is an SIT Test Result report that will highlight what test scenarios were run to completion and the results of each test case. Aurigo uses the ETVX (Entry Criteria, Task, Validation, and Exit Criteria) strategy for integration testing.



An Aurigo Data Migration Specialist will work with the WVDOT's SMEs during the Business Process Mapping phase to develop a plan for migrating the WVDOT's project data and documents out of their existing system(s). Various methods can be used to import the project data into the Masterworks database, including Excel export/import, FTP integration, and the Masterworks Migration Tool. The WVDOT will be responsible for identifying the data they want to extract from existing systems, scrubbing the data if needed, and then placing the data into file(s) formatted for easy unload into the Masterworks MS SQL database. A series of tests will be conducted throughout the Solution Configuration phase of the project to ensure the data can be successfully uploaded into Masterworks. Full data migration of the contracted scope will be performed before the solution going live.

Table 1 and **Table 2** provide an inventory of the WVDOT systems within the scope of the ROW project, either as targets for replacement with the migration of data from the external system into Masterworks or an interface between the external system and Masterworks.

Sample

Table 1 - Integration Plan

ID #	Integration?	3rd Party System	Integration Data	Source System	Target System	Description of the Integration Point	Description of the Integration Point
1							
2							
3							
4							
5							

Table 2 – Data Migration

ID #	Data Migration?	3rd Party System	Type of Data	Description of the Data to be Migrated	Data Migration Clarifications
1					
2					

3.1.4 Solution Testing

The WVDOT's solution will go through multiple rounds of testing as part of quality assurance and quality controls before moving into production. These are:

- (a) Developer Unit Testing
- (b) Quality Certification Testing
- (c) Full System Regression Testing
- (d) Smoke Testing
- (e) System Integration Testing (SIT)
- (f) Performance Testing
- (g) Penetration Security Testing
- (h) User Acceptance Testing (UAT)

Aurigo does the first four testing areas before deploying the system to the WVDOT for testing. The WVDOT will perform System Integration Testing and User Acceptance Testing (UAT). The Solution Testing phase concludes with the WVDOT's approval to move the system to production. The Solution Testing Phase deliverables include:

- (a) System Integration Testing (SIT) Environment and Results
- (b) Performance Testing Results
- (c) Penetration Testing Results
- (d) User Acceptance Testing (UAT) Environment and Results

Descriptions, details, frequency, and acceptance criteria for each deliverable are below.

3.1.4.1 System Integration Testing (SIT) Environment and Results

(a) Description

1. This testing phase puts the delivered solution into an isolated testing environment with test versions of all systems that have integrations.
2. The overall testing provides point-to-point testing of every interface that has been developed as part of the release.
3. The scenarios that will be run are geared to testing data boundaries, conversion, validation rules, etc.
4. The WVDOT will need to provide access to their applicable business system test environments for testing the integrations between Masterworks and the WVDOT's business systems.

(b) Frequency

After integration and data migration are configured

(c) Acceptance Criteria

1. Tests run to completion and pass
2. No severity 1 or severity 2 bugs remain unresolved
3. Test Cases and test results are provided to and accepted by WVDOT

3.1.4.2 Performance Testing Results

(a) Description

1. The performance tests the system from a performance and scalability perspective.
2. It ensures that all configurations function at predicted user loads with predicted data sets.
3. This testing is critical to ensure that the system will operate normally in a production environment with a full user load accessing the system.

(b) Frequency

After integration and data migration are configured

(c) Acceptance Criteria

Test results are provided to the WVDOT, meet the WVDOT's non-functional requirements, and are accepted by the WVDOT.

3.1.4.3 Penetration Security Testing Results

(a) Description

1. Penetration testing ensures the system is not vulnerable to attacks by third parties.
2. Aurigo regularly runs penetration testing on its platform, but this phase ensures that the delivered solution has no known open security holes.
3. During this penetration security testing, Aurigo performs testing that includes tests for the OWASP top 10 security flaws for web-based applications

(b) Frequency

Once integration and data migration is configured

(c) Acceptance Criteria

Test results are provided to the WVDOT and accepted by the WVDOT.

3.1.4.4 User Acceptance Testing (UAT) Environment and Results

(a) Description

1. In this testing phase, the WVDOT will review all solution deliverables submitted by Aurigo.
2. Aurigo will work with the WVDOT to support UAT
3. Testing should provide end-to-end business scenario testing
4. The goal of UAT is to verify that all functional and non-functional requirements have been met and configured to the WVDOT's approved specifications.

(b) Frequency

Once. After solution configuration and testing is complete

(c) Acceptance Criteria

1. Test Cases and Test results are run to completion and passed
2. No severity 1 or severity 2 bugs remain unresolved
3. An agreed-upon code freeze has been implemented, and any necessary regression testing/smoke testing has been performed successfully

4. The WVDOT approves the system for production release

3.1.5 Training

Aurigo recognizes the need for solid end-user training to support effective solution adoption. Aurigo's training approach provides a framework using effective methods and best practices for initial and sustainable training. Early engagement of key users, training geared towards different learner groups, and continued access to the training material are key in ensuring training success, which adequately prepares end users. Aurigo has extensive experience delivering training to users at large and complex organizations, including internal staff, local agency staff, system administrators, and technical staff. Aurigo's training approach incorporates the best practices learned while delivering Masterworks solutions to its very large and diverse client base.

Training Methodology

Aurigo is proposing to use Aurigo's standard training methodology as detailed below. The training approach is adjusted per client to align with business requirements. Aurigo's training approach ensures a well-trained workforce supported by a strong training program.



Stage 1 - Analysis – Aurigo performs a high-level training needs analysis in consultation with WVDOT's personnel to carefully understand the WVDOT's training needs as specified in the RFP. This information is used as an input to finalize the training strategies (ex. train-the-trainer) and approach. The key goal of this phase is to develop a comprehensive training plan to ensure alignment of the training to the overall project scope and implemented solution. Training Plan will be developed in consultation with the WVDOT.

Stage 2 - Design – The training instructional strategies and course curriculum will be finalized using the training plan's information. The key goal of this phase is to ensure alignment of the training to the overall project scope and implemented solution. The instructional design plan/strategy, as identified in the Training Plan, is applied to develop a comprehensive training program for all users during this stage. This stage also involves designing the curriculum and course for the various learner groups such as Administrators and end-users.

Stage 3 - Training Development (Training Material) – The training content is developed during this phase. Aurigo typically develops training materials by leveraging the existing Aurigo standard training material and incorporating changes to align with the system configured for the WVDOT. The training material includes PowerPoint presentation slides and a Participant guide (scripts for hands-on), which is also referred to as the Training Manual. Aurigo will also develop the full system documentation comprising the System Administrator Help and End User Help during this phase. This documentation is provided in the form of Online Help accessible from within the new system to provide business users and system



administrators the necessary self-help user documentation. The online Help will continue to serve as future reference material for all users after the initial training.

Stage 4 - Training Deployment & Delivery – Training delivery activities are planned and conducted during this phase. It includes finalizing training facilities, training logistics, and identifying the WVDOT trainers and other participants. Participants’ calendars are reserved by sending out training invites in advance to ensure maximum participation. Due to the current health crisis, all training will be delivered remotely. (Note: we assume the WVDOT will plan, coordinate and communicate with participants to arrange necessary logistics).

Training Approach

This section describes the training approach proposed by Aurigo. Considering the RFP requirements and the number of users, Aurigo proposes a Training Program comprising Aurigo Delivered Training and WVDOT Delivered Training. With this approach, WVDOT will build a pool of experts and champions to enable system support in the long run. Aurigo delivered training includes a one-time System Administrator training and a one-time End User Training delivered using a Train-the-Trainer (TTT) approach. The TTT will train WVDOT-identified trainers to deliver end-user training, and any Aurigo delivered additional end-user training as described below. WVDOT trainers will be responsible for delivering end-user training to the remaining users. During WVDOT delivered training, Aurigo will provide technical support (refer to the detailed description below).

Aurigo Delivered Trainings

<<PLACEHOLDER - INSERT FINAL TRAINING COURSE DETAIL AS PART OF CONTRACTING PROCESS>>

Training Roles and Responsibilities

Based on industry best practices and Aurigo’s extensive experience delivering training, Aurigo recommends maximum WVDOT representative involvement for successful staff training. The table below briefly describes a few key roles and their responsibilities.

Roles and Responsibilities – Training			
		Aurigo	WVDOT
1	Coordinate with the WVDOT training coordinator for the use of WVDOT training facilities and specific equipment needed.	☑	
2	Provide to WVDOT personnel required facilities, classrooms, computers, and network connectivity for Instructor-led (virtual) training.		☑
3	Develop a comprehensive Training Plan to train WVDOT users	☑	☑ (Support / Consult)
3	Develop training materials and online Help aligned with the configured system for WVDOT	☑	



4	Create and send out the meeting invite and ensure required attendees are present		?
5	Deliver system administrator training and Train-the-Trainer training to WVDOT identified users as defined in the training plan and in “Aurigo Delivered Training Sessions – Administrator and end-user training delivered as TTT.”	?	?(Support / Consult)
6	Deliver additional end-user training to WVDOT participants as defined in “Aurigo Delivered Training Sessions – End User.”	?	?(Support / Consult)
7	Deliver end-user training to remaining WVDOT users	Technical support	?
8	Coordinate, communicate, and track training participation and attendance		?

Training Delivery Logistics

For all the training listed above, the WVDOT is responsible for arranging training facilities, scheduling training classes, and managing/tracking training enrolment and completion. The WVDOT project team is responsible for printing and distributing all training materials using the soft/electronic copies Aurigo provides.

Training Environments

Training environments sufficient to support the overall training effort will be designed, implemented, and managed. The following activities/outputs will be accomplished:

- Aurigo will provide two Training Environments, one for training delivery (Training Environment) and one for post-training practice (Training Practice Environment).
- The Training Environment will be used to deliver the Administrator, End User (TTT, additional End User) training by Aurigo and remaining End User Training by WVDOT. A single environment will be configured for all training deliveries.
- The Training Environment will be reset periodically to maintain a clean environment for a new set of learners on request from WVDOT.
- The Training Practice Environment will be the copy of the fully configured Training Environment. It will be available for learners to practice after completing their courses. This practice environment will not be reset for data.
- Aurigo will set up requisite generic users for End-User Training.

3.1.6 Production Release (Go Live)

Production deployment/go-live planning takes place during this phase. The primary activity is production deployment readiness, communication planning, and post-deployment validation.

3.1.6.1 Deployment Plan

(a) Description

1. Plan for the deployment of the solution to production
2. Contingency and rollback plan if deployment is unsuccessful
3. Smoke test plan that includes steps to verify the deployed solution is functioning correctly in the production environment
4. Criteria for approving production deployment (Go / No Go Decision)
5. Anticipated downtime with user impact during deployment
6. User and service desk communication plan
7. Final deployment approval steps
8. Estimate of the duration of deployment activities, required resources, and skills necessary for required resources

(b) Frequency

Once for production release

(c) Acceptance Criteria

1. Deployment Plan review and acceptance by the WVDOT required before production release
2. Project Schedule review and acceptance by the WVDOT required before Go / No Go Decision Meeting.
3. Aurigo will update the project schedule based on review comments from WVDOT.

3.1.6.2 Warranty Support Plan

(a) Description

1. Aurigo will create and deliver a Warranty support plan per the Support Plan reference SSA/MSA. Aurigo will obtain WVDOT approval of this plan no later than twenty (20) days before the first scheduled Go-Live date. The Warranty support plan will:
 - a. Identify the tasks and roles required to support the application during the Go-Live and Warranty periods.
 - b. Outline the escalation prioritization and incident resolution process.
 - c. Identify WVDOT staff who will be assigned to the support roles and where they are located.
 - d. Set qualifications and performance standards for WVDOT personnel who perform the support roles.
 - e. Appoint a contact person that the key WVDOT users must consult when escalating production issues.

(b) Frequency

Once for production release

(c) Acceptance Criteria

Warranty Support Plan review and acceptance by the WVDOT required before production release



3.1.6.3 Project Closeout, Final Acceptance, and Transition to Support

(a) Description

1. This is the final phase to close out the project and transition the WVDOT to Aurigo Support
2. Project closeout includes:
 - i. Contract Closeout.
 - Verification all expected deliverables have been received
 - Verification all requirements have been met and closed
 - ii. Project Financial Closeout - Verify final Professional Services project invoice has been processed
 - iii. Transition the WVDOT to Aurigo Support
 - Introduce the WVDOT to Aurigo Support personnel
 - Review SLA
 - Train the WVDOT System Administrator on how to log, monitor, and review production issues in the Aurigo Client Support Portal
 - iv. Obtain Final Acceptance sign-off from the WVDOT

(b) Frequency

1. Once after the Contract and RTM final review meeting
2. Once after Project Closeout and Transition to Support meeting (includes Client Support Portal training)

(c) Acceptance Criteria

1. RTM line items closed
2. Participate in lessons learned
3. The WVDOT Final Acceptance sign-off
4. Final Professional Services invoice processed
5. Transition to Aurigo Production Support
6. All final deliverables updated, cataloged, and delivered to the WVDOT in final form



4 Functional Scope

The functional scope will be defined in Phase 2 (Business Process Mapping) of the implementation. During the business process mapping phase, Aurigo will work with designated members of the WVDOT team (the SMEs) to further refine the needs and requirements specified in the scope of services in **RFP No. DOT2200000002**. The Client and Aurigo may jointly decide to modify and reengineer some of the existing processes followed by the client based on better functionality and ease-of-use features available in the Masterworks solution and the industry best practices proposed by Aurigo consultants. As mentioned above, this project phase is part of the hybrid agile approach that Aurigo utilizes to deliver projects to its clients. In a pure agile environment, there would be no independent BPM phase. To ensure that the requirements are well understood and to reduce risks to the project, Aurigo will elaborate a majority of the requirements upfront before the configuration process commences. Part of the business process mapping will include how existing processes are configured in Masterworks for our clients.

The scope will include capabilities defined in response to the RTM. The requirements will be documented and approved in the following deliverables before the development begins:

- Configuration Specifications and RACI documents which will be used for tracking purposes until the requirements are delivered
- Process diagram(s) on how existing business process will tie into Masterworks
- Any additional Configuration Specification documents that further detail each requirement

5 Project Teams & Project Governance

5.1 Vendor Project Team

As part of the Aurigo Connected Methods (ACM) methodology, Aurigo will continuously engage and involve WVDOT personnel across all the phases of the project life cycle. Aurigo’s core team involved in the discovery process will require stakeholders from the WVDOT and Aurigo teams. Detailed below are the Aurigo personnel and their responsibilities.

Role	Responsibilities
Executive Sponsor	<ul style="list-style-type: none"> • Provides strategic direction to the Steering Committee • Accountable for establishing overall project scope, goals, and objectives. • Chair the project steering committee, providing strategic direction to the Steering Committee. • Ensure adequate project resources. • Review and provide final approval as needed on scope, schedule, or budget change requests. • Final decision maker on escalated critical issues not resolved by project and steering team.



Role	Responsibilities
Project Manager	<ul style="list-style-type: none"> ➤ First point of contact for the WVDOT on project deliverables. ➤ Maintain project status reports for the project team, sponsor, stakeholders, and management. ➤ Discusses delivery schedule between the WVDOT and Aurigo and commits to schedule. ➤ Defines and plans project milestones, executes the project to meet milestones. ➤ In conjunction with the WVDOT PM, manage project scope, schedule, deliverables, issues, and risks. ➤ Ensures adherence to ACM (e.g., established project standards, processes, and procedures). ➤ Communicates and updates the WVDOT PM, Sponsor, and Account Executives on current and emerging risks.
Business Analyst	<ul style="list-style-type: none"> ➤ Work with BO, SME, and client BA in documenting detailed requirement specifications. ➤ Participate in the to-be Process and Business Process Mapping. ➤ Analyze and suggest changes to the to-be process as per industry standards. ➤ Analyze and map business processes to the solution. ➤ Suggest changes to the to-be process to provide an optimized and efficient solution. ➤ Create specifications detailing the business requirements, use cases, business rules, and validations.
Account Management / Account Executive	<ul style="list-style-type: none"> ➤ Makes sure the continuation of healthy client relationships by ensuring agreements between the two parties are fair and to everyone's satisfaction. ➤ Proactively assesses, clarifies, and validates client needs on an ongoing basis. ➤ Acts as the second point of escalation, after the Aurigo PM. ➤ Communicates and updates Executive sponsors on upcoming opportunities and current or emerging project risks.
Solution/Technical Architect	<ul style="list-style-type: none"> ➤ Responsible for ensuring project compliance with solution architecture and implementation best practices and standards. ➤ Establishes best practices for the implementation of functional and non-functional requirements ➤ Establishes and enforces compliance with agreed on technical architecture ➤ Provides architectural guidance to achieve application performance



Role	Responsibilities
Training Lead	<ul style="list-style-type: none"> ➤ Responsible for developing the training plan and implementation of best practices and standards to support training delivery ➤ Ensures Training content and collateral meets the WVDOT’s needs ➤ Creates overall training design and approach ➤ Works with the documentation team for all training collaterals ➤ Works with the configuration team to set up the training environments ➤ Participates in training delivery ➤ Reviews training feedback and incorporates changes, as required
Content Writer	<ul style="list-style-type: none"> ➤ Responsible for Training material development for end-user and system administrator training ➤ Responsible for ensuring all material is aligned with the ROW system as configured. ➤ Responsible for Online help content development
Configuration Team	<ul style="list-style-type: none"> ➤ Manages the sprint planning, sprint readiness, and sprint deliverables ➤ Responsible for application setup and solution configuration as per business requirements. ➤ Releases sprint commit and sprint exit reports for each sprint to Aurigo PM ➤ Ensures adequate resources are assigned to project tasks ➤ Ensures adherence to the established project standards, processes, procedures, and stage-gate reviews ➤ Closely synchronizes with Aurigo PM on risks and issues as early as possible

5.2 Client Project Team

Aurigo suggests that the WVDOT’s project team be assembled to ensure the best possible outcome for the WVDOT through the project implementation process. Having the input and direction from key WVDOT stakeholders throughout the project delivery lifecycle ensures the system will be best configured to suit the WVDOT’s needs. In our experience implementing Masterworks with public agencies similar to the WVDOT, we have found that following Aurigo Connected Methods and creating this project team leads to consistently positive outcomes for our clients.

We have provided an estimate based on our experience and the requirements similar to what is specified in the RFP. Before starting the implementation, Aurigo will create a project management plan, which will have more specifics regarding the time commitment and responsibilities needed from the WVDOT project team.

WVDOT Role	Responsibilities	Expected Involvement
Executive Sponsor, Project	<ul style="list-style-type: none"> • Oversight and decision-making. • Accountable for establishing overall project scope, goals, and objectives. 	Executives shall be available for scheduled Executive meetings,



WVDOT Role	Responsibilities	Expected Involvement
Sponsor, or Business Owner	<ul style="list-style-type: none"> • Chair the project steering committee, providing strategic direction to the Steering Committee. • Ensure adequate project funding and resources. • Review and provide final approval as needed on scope, schedule, or budget change requests. • Final decision maker on escalated critical issues not resolved by project and steering team. 	<p>Steering Committee and project sponsor meetings throughout the project.</p> <p>Executive Sponsor/Project Sponsor will be required once a month for approximately an hour.</p> <p>Aurigo suggests dedicating the WVDOT's Business Owners for 10% of the time during the project.</p>
Project Manager	<p>Managing the WVDOT's portion of the project: providing access to key business stakeholders when appropriate; managing the availability, assignment, and participation of all relevant WVDOT resources per the project schedule and the project plan; scheduling the relevant implementation sessions; providing a productive work environment for the project team, including meeting room facilities for all relevant meetings and sessions.</p> <ul style="list-style-type: none"> • <i>Manages the project scope, schedule, vendor deliverables, issues, and risks throughout the project delivery lifecycle.</i> • <i>Coordinate with various teams to ensure smooth project delivery.</i> • <i>Point of contact for the Aurigo team.</i> • <i>Responsible for conducting project status meetings along with the Aurigo PM and reporting on project status.</i> 	<p>Needs to be dedicated full time to the project.</p> <p>The commitment of the PM is integral to the success of the project.</p> <p>Aurigo suggests the WVDOT's Project Manager be dedicated; however, having the PM dedicated for 50% of the project is adequate.</p>
Business Analyst(s)	<p>Provide day-to-day input into the current and future ROW's design, business usage, and other business processes.</p> <ul style="list-style-type: none"> • <i>Key liaison from the business core team to the implementation team.</i> • <i>Capture, document, track, and analyze business requirements.</i> • <i>Lead testing and functional sign-off with business stakeholders.</i> • <i>Gather and provide Aurigo BA with WVDOT's as-is process/data/business workflow diagrams</i> • <i>Assist the Aurigo BA in developing the to-be process/data/business workflow diagrams.</i> 	<p>Needs to be dedicated full time to the project.</p> <p>Aurigo suggests the WVDOT's Business Analyst be dedicated; however, having the business analyst dedicated for 50% of the project's time is adequate.</p>

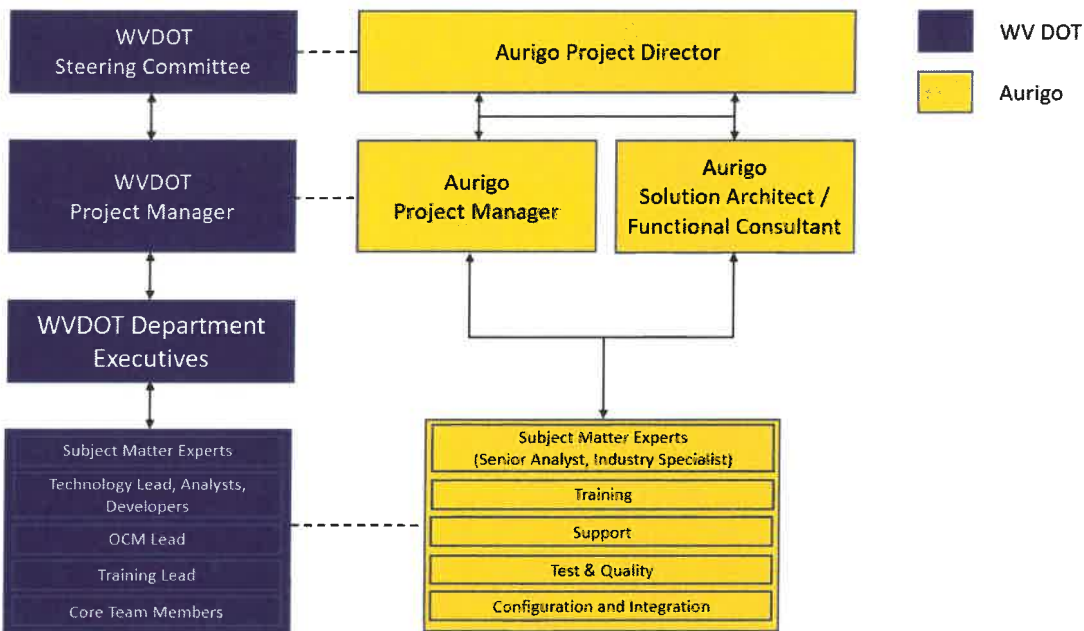


WVDOT Role	Responsibilities	Expected Involvement
	<ul style="list-style-type: none"> • <i>Work closely with Aurigo Business Analyst to ensure requirements are delivered.</i> 	
<p>Subject Matter Experts (SME's)</p>	<p>Provide deep-dive input into the current and future ROW design, business usage, and other business processes.</p> <ul style="list-style-type: none"> • <i>Responsible for driving decision-making for assigned process area(s).</i> • <i>Actively participate and effectively communicate in business process mapping sessions.</i> • <i>Influence decisions on to-be business processes.</i> • <i>Communicate emerging risks to the project sponsor and project manager.</i> 	<p>A Solution Architect and Subject Matter Experts shall be available for scheduled solution design meetings as applicable for the project.</p> <p>Aurigo suggests dedicating the WVDOT's SME 25% of the time during the project.</p> <p>Aurigo suggests having a solution architect available on an as-needed basis; however, assigning a WVDOT solution architect is unnecessary for this project.</p>
<p>Technical application deployment and external system interface support (IT)</p>	<p>Identifying and testing interfaces with systems to be integrated into Masterworks, system administrator training on Masterworks.</p> <ul style="list-style-type: none"> • <i>Responsible for contributing to technical specifications related to the WVDOT systems for integrations, interfaces, data migrations, etc.</i> • <i>In coordination with the business analyst, develop and test integrations and interfaces and perform data migrations per the approved technical spec.</i> 	<p>Data Migration and Integration Leads shall be available for scheduled system interfaces meetings as applicable for the project. Trainer(s) shall be available for Masterworks Solution and System Administrator training as planned in the project schedule.</p> <p>Aurigo suggests dedicating the WVDOT's necessary technical resources for 5-10% of the time during the project based on our understanding of the required interfaces and data migration scope.</p>



5.3 Project Governance

The following exhibit depicts a draft organization chart identifying the proposed project team positions and reporting relationships. The project team organization adopts Aurigo’s three-tiered governance structure and lays a foundation for better communication, reporting, and escalation. The organization chart will be finalized during the Phase 1 Project Planning, with final approval by the WVDOT PM.



Through the project organization structure described above, Aurigo will be able to provide effective lines of communication to all the WVDOT stakeholders and clear paths for escalation of both delivery and commercial issues. These communication channels will be instrumental for the successful delivery of this project by the agreed deadlines.

The personnel detailed below will be needed for the successful implementation of the solution at the WVDOT. Aurigo will need continuous access to the personnel below to deliver the project successfully. The WVDOT is responsible for scheduling and providing access to key personnel throughout the life of the project.

The WVDOT will need to contribute one or more of the following resources for oversight and decision-making:

- Executive Sponsor
- Project Sponsor
- Business Owner

The WVDOT will need to provide the following resources for day-to-day input into the design, business usage, and technical interfaces:

- Project Manager
- Business Analyst(s)
- Design Team – the WVDOT’s subject matter experts (“SMEs”)
- Technical application deployment and external system interface support (IT)

The WVDOT will have primary responsibility for the availability of each WVDOT resource during project delivery when required to meet the project schedule. In addition, Aurigo will need WVDOT staff assistance to address one or more of these additional responsibilities listed below:

- Provide access to key business stakeholders when appropriate
- Help with coordinating training with external contractors who will be given access to the solution
- Manage the availability, assignment, and participation of all relevant WVDOT resources per the project schedule
- Ensure scheduling of the relevant implementation sessions
- Provide a productive work environment for the project team, including meeting room facilities for all relevant meetings and sessions

6 Assumptions, Contacts & Location

6.1 General SOW Assumptions

The scope of the SOW is based upon **RFP No. DOT2200000002** and <TBD> as it relates to functional requirements and pricing.

6.2 CoVID-19 Restrictions

Due to the COVID-19 pandemic, we anticipate the implementation will occur mainly online utilizing meeting services (e.g., Zoom, MS Teams) and some onsite meetings. We will coordinate this with the WVDOT based on the timing and public health mandates.



7 Project Terms

7.1 Services Payment Milestones Schedule

For the agreed-upon Services, below is the payment milestones schedule for the project.

Aurigo shall invoice for each deliverable milestone upon acceptance by the WVDOT.

<<PLACEHOLDER - INSERT FINAL PAYMENT MILESTONE SCHEDULE AS PART OF CONTRACTING PROCESS>>

7.1.1 Payment Milestone Acceptance Email Template

Hi <Customer Project Manager> ,

As reviewed, I have included the payment milestones for <Month, Year> for your approval. I will send this to my Finance team to generate the invoice post your approval.

Payment Milestones	Quantity	Rate	Amount
<Payment Milestone Name>			<\$>
Total			<\$>

Regards,
<Aurigo Project Manager>

7.1.2 Final Acceptance and Close Out

The Acceptance Criteria for the Services for WVDOT provided by Aurigo will be documented as part of the project lifecycle. A sample Project Acceptance and Sign-off form is attached on the following page.

Project Acceptance and Sign-Off

Project Name:	
This Document is Issued by:	
Project Start Date:	
Project End Date:	



The project outcome has been measured against its acceptance criteria and has been formally accepted on behalf of the West Virginia Department of Transportation.

Unless otherwise noted, the project may now be closed.

Additional Comments related to the West Virginia Department of Transportation Acceptance:
Key Metrics Achieved:
Key Lessons Learned (list, if any):

Project Acceptance Sign-off

Role	Name	Date	Signature
Project Sponsor			
Project Manager			

7.1.2.1 Closeout Process

This is the final phase to close out the project and transition the WVDOT to Aurigo Support. Project closeout includes:

- Contract Closeout.
 - Verification all expected deliverables have been received
 - Verification all requirements have been met and closed
- Project Financial Closeout - Verify final Professional Services project invoice has been processed
- Transition the WVDOT to Aurigo Support
 - Introduce the WVDOT to Support personnel
 - Review SLA
 - Train the WVDOT Help Desk on how to log, monitor, and review production issues in the Aurigo Client Support Portal

- Obtain Final Acceptance sign-off from the WVDOT

The acceptance criteria for Project closeout are:

- RTM line items closed
- The WVDOT Final Acceptance sign-off
- Final Professional Services invoice processed
- Transition to Aurigo Production Support
- All final deliverables updated, cataloged, and delivered to the WVDOT in final form

7.2 Project Milestone Schedule

A detailed project schedule will be developed jointly with WVDOT during the Planning Phase of the implementation. Below is the project milestone calendar for ROW Implementation:

7.2.1.1 ROW Project Milestone Calendar

<<PLACEHOLDER - INSERT FINAL MILESTONE SCHEDULE AS PART OF CONTRACTING PROCESS>>

7.3 Travel and Expenses

Travel and expenses for the WVDOT implementation are defined based upon the following criteria and guidelines:

(a) Description

1. Aurigo Project Manager may request travel authorization before any Aurigo staff traveling onsite as long as there are no Aurigo travel restrictions in place.
2. The WVDOT Project Manager to approve travel authorization before Aurigo staff booking travel.
3. In the interest of cost savings, travel authorization should be at least three weeks in advance.
4. Aurigo travel expenses to be invoiced monthly, with attached receipts, and reimbursed by the WVDOT on actuals.
5. Aurigo will comply with the WVDOT's Travel Policies [**Insert or Reference WVDOT Travel Policy reference**]



Third-Party Subtotal	\$ -
-----------------------------	------

3. Services		Total Price
Implementation (from Implementation Tab)		\$ -
Impl Services Subtotal		\$ -

PROPOSED 4. Ongoing Costs	A. Base-Implementation	B. Base-Post Production	C. Option Term	D. Total Price (A+B+C)
Annual SaaS Subscriptions	\$ -	\$ -	\$ -	\$ -
Annual Third-Party SaaS Subscription	\$ -	\$ -	\$ -	\$ -
SaaS-Application Managed Services		\$ -	\$ -	\$ -
			Ongoing Costs Subtotal	\$ -

Total Contract Price (Sum of Subtotals of Section 1-4)	\$ -
---	------

Pricing Notes:

1. The services investment quoted above is calculated based on the requirements defined in the RFP, Aurigo’s interpretation of those requirements, clarification responses, the assumptions stated in Aurigo’s RFP response. Any substantial changes to the assumptions or scope specified may result in a change order.
2. The Pricing specified in the proposal includes Aurigo’s Silver Support Plan.
3. All Pricing specified in the proposal is subject to change after the expiration of the initial contract term.
4. All Pricing specified in the proposal is exclusive of travel expenses, which will be billed on actuals per the client’s travel policies.
5. Any change to the agreed-upon project schedule or scope outside of Aurigo’s control may result in a Change Order and additional investment.

6. The initial contract term is for twelve (12) months. The WVDOT shall have the option to renew the contract for up to three (3) additional twelve-month periods.
7. The Annual Subscription Fees are due at contract signing and on each anniversary after that.
8. Data Migration and Integration TBD (*Need to be defined*)
9. Due to COVID-19 travel restrictions, the actual number of trips is difficult to define the mobilization costs. We have included no trips in the pricing. If trips are required, they average _____ trip per resource. Travel will be identified and agreed upon by the WVDOT and Aurigo Project Managers.
10. Aurigo's provided training approach utilizes Train-the-Trainer to empower the WVDOT to train additional users moving forward without requiring assistance. If there are resource constraints or the WVDOT would prefer Aurigo to provide additional training, we are open to discussing the scope and providing an associated investment to meet the additional training requirements.

Sample

Appendix A – Project Change Control

Summary of Change Control & Assumptions

This Change Control Plan establishes how the project team will manage scope, schedule, or budget changes in the implementation project. A change is a deviation from the agreed scope, schedule, or budget that, if it occurs, could have a positive or negative effect on the objectives of the project. The overall goal of the Change Control Plan is to ensure project success. The intended audience of this document is the project core team and project sponsors.

Purpose

As changes to scope, schedule, or budget arise during project execution, it is important to follow a disciplined change control process to ensure agreement on the following:

- Required adjustments to schedule or cost
- Business / Project impact
- Adherence to contractual requirements

The purpose of the Change Control Plan is to proactively manage changes to project scope, schedule, and cost as defined in the Project Management Plan (PMP). Change control does not mean changes are not allowed but instead ensures any actions needed are considered and agreed upon.

Cost of Getting it Right

It is the responsibility of all project team members to identify and escalate potential Change Requests through their project managers.

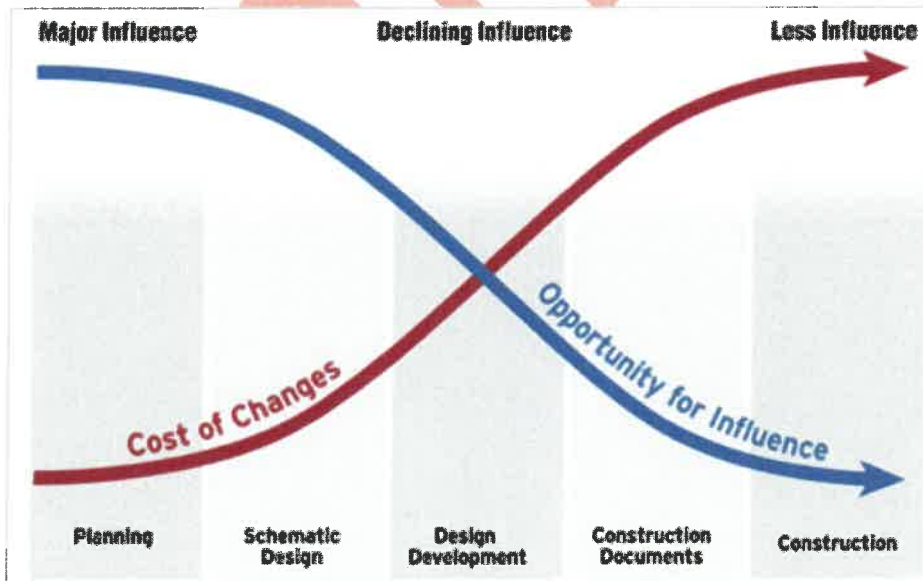


Figure 1 – Example of “Cost of Changes vs. Opportunity for Influence” in a project’s lifecycle

Project Change Control Procedure

Change Control Board

The Change Control Board (CCB) is a team of project stakeholders who make decisions regarding whether proposed Change Requests should be implemented. The CCB is made up of members of the Project Steering Committee. The CCB conducts negotiations through a series of review meetings to evaluate what would be involved in executing the proposed change and how it fits in the contracted scope of work.

There are three stages in a CCB negotiation:

- (a) The CCB agrees on whether a Change Request is indeed a change:
 - i. If Yes, the change is not within the contracted scope of work and will require a Change Order.
 - ii. If No, the change is within the contracted scope of work, and a Change Order will not be required.
- (b) Feasibility Analysis: The CCB identifies if the proposed Change Request is feasible and what level of effort would be required.
- (c) Implementation Decision: The WVDOT determines whether to implement the change or defer to a later time

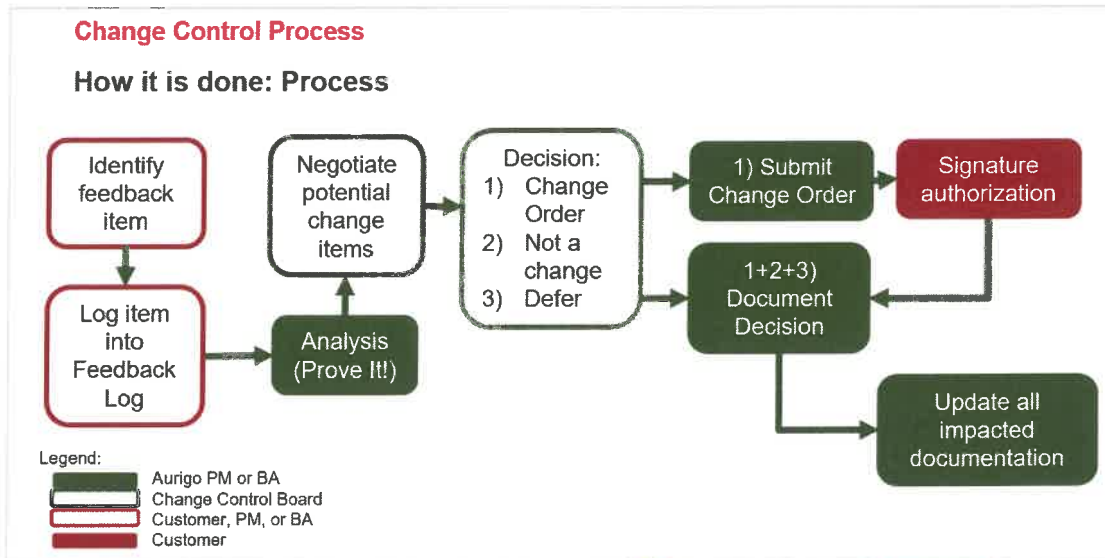
Change Order Document

A Change Order document is created after the CCB approves a Change Request and determines when to implement the change. The purpose of the Change Order document is:

- (a) To clearly define the approved Change Request
- (b) To clearly define the impacts to cost and schedule
- (c) To document the WVDOT's approval to proceed with making the change

Change Control Process

Aurigo or the WVDOT may initiate Change Requests whenever there is a perceived need for a change that will affect the contracted work, schedules, solution functionality, or cost.



The process for initiating, reviewing, and approving a Change Request is as below:

- (a) Any potential need for change is escalated to the Project Managers and entered into the Feedback Log.
- (b) The WVDOT and Aurigo Project Managers collaboratively review each change and determine if a Change Request is valid:
 - i. If Yes, the Change Request is ready for impact assessment.
 - ii. If No, the Change Request status is changed to “Deferred,” and the reasons for the postponement are entered into the comments.
 - iii. The project core team will complete an impact assessment for the validated Change Request and provide estimates for the effort required to implement the change. Impact assessments, effort estimates, and all required information for validated Change Requests must be completed before a Change Control Board (CCB) review. The status of validated Change Requests is set to “Ready for Review.”
- (c) The CCB will review each “Ready to Review” Change Request and decide on how to proceed:
 - i. Approved – The status of the Change Request Item is set to “Approved” in the Feedback Log. The project managers will create a formal Change Order that needs to be signed by the Project Sponsor.
 - ii. Rejected – The status of the Change Request Item is set to “Rejected” in the Feedback Log. The associated section in the log is updated with appropriate comments for record-keeping purposes.
 - iii. Defer – The status of the Change Request Item is set to “Defer” in the feedback log. The associated section in the log is updated with appropriate comments for record-keeping purposes.

- (d) Approved Change Requests (i.e., approved requirements) are added to the Requirements Traceability Matrix, and the signed Change Order document number is included for reference.
- (e) Any impacted project documents (project schedule, payment milestones, etc.) will be updated based on the details of the signed Change Order.

Note: Emergency change requests requiring immediate processing will follow the same process. However, the process will be expedited by the project managers.

Change Control Process Metrics

- (a) Approved change requests will be tracked and managed in the "Feedback Log" located in the document share site maintained for the project.
- (b) Any project team member can fill out a potential change request in the "Feedback Log."
- (c) Project Managers are responsible for gathering details and reviewing each change request to ensure it is valid, complete, and ready for Change Control Board (CCB) review.
- (d) A request for a change in services must be in writing. Both the WVDOT and Aurigo can request changes. Change Requests can include changes in project plans, scope, specifications, schedule, designs, requirements, service, software environment, or any other contracted work deliverable.
- (e) Neither party is obligated to perform a task related to a change in schedule, scope, cost, or contractual obligation until both parties agree to the change in writing in an approved Change Order.
- (f) An approved Change Order is required before any work associated with a Change Request will be performed.



Appendix B – Change Order Document

A Change Order document is created after the CCB approves a Change Request and determines when to implement the change. The purpose of the Change Order document is:

- (d) To clearly define the approved Change Request
- (e) To clearly define the impacts to cost and schedule
- (f) To document the WVDOT’s approval to proceed with making the change

Aurigo will develop the Change Order document as part of the implementation and review it with WVDOT for approval.

Appendix C – Additional Services

Aurigo is providing our current 2021 Rate Card with roles and associated rates. These rates apply to any agreements, work orders, or change orders executed by December 31, 2021. Any agreement executed after this date will reflect current published rates.

Role	Per Hour Rate
Project Manager	
Business Analyst	
Configuration Specialist	
Data Migration Specialist	
Integration Specialist	
Training Content Developer	
Trainer	
Solution Architect	

Appendix D – Reference Documents

Aurigo RFP Response

Attached to this original Aurigo West Virginia Department of Transportation RFP response dated September 23, 2021.

West Virginia Department of Transportation RFP

Attached to this original WV DOT issued RFP dated August 19, 2021.

Sample



Tab 11 Requirements Matrix Responses (Attachment A)

Please see Aurigo's responses in the Requirements Matrix on the following fifty-one (51) pages.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

A	B	C	D	E	F	G	H	I
Req. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
I-001	General	Provide the ability to support the management and tracking of the full lifecycle of the WVDOT right-of-way acquisition process including: - project set-up; - parcel identification and set-up; - management of acquisition activities; - appraisals; - negotiation; - condemnation; - relocation; and - property management.	Customization	Medium		Right-of-Way and Land Management	N/A	Aurigo can configure forms, workflows, and reports in Masterworks to provide right-of-way acquisition process capabilities, including forms (templates) configured for: project set-up; parcel identification and set-up; management of acquisition activities; appraisals; negotiation; condemnation; relocation; and property management. The Aurigo Project Manager and Business Analyst will help the Agency identify the requirements and business rules during the project's elaboration phase.
I-002	General	Provide the ability to support the management and tracking of the WVDOT right-of-way acquisition process according to the WVDOT right-of-way acquisition procedures manual and the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.	Customization	Medium		Right-of-Way and Land Management	N/A	During the project's elaboration phase, the Aurigo Project Manager and Business Analyst will help the Agency identify the requirements and business rules required by the West Virginia DOT right-of-way acquisition procedures manual and the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Masterworks' forms, workflows, and reports will be configured to meet the requirements and business rules.
I-003	General	Provide the ability to support the various types of right-of-way acquisitions, including but not limited to: - fee-simple; - permanent easement; - temporary easement; - functional replacement; - Federal Land transfer; and - the cost of cure for property damages during construction.	Customization	Medium		Right-of-Way and Land Management	N/A	Aurigo Masterworks ROW module can be customized based on the Agency's requirements, including: Permanent Easement Temporary Easement Functional replacement Federal land Transfer Cost of cure for Property damages etc.
I-004	General	Provide the ability to support management and tracking of utility relocation activities required for transportation projects according to the WVDOT utility relocation manual. Please refer to Utility Relocation and Railroad tab for additional detailed requirements.	Customization	Medium		Right-of-Way and Land Management	N/A	During the project's elaboration phase, the Aurigo Project Manager and Business Analyst will help the Agency identify the requirements and business rules required to support the management and tracking of required transportation project utility relocation activities according to the West Virginia DOT utility relocation manual. Masterworks' forms, workflows, and reports will be configured to meet the requirements and business rules.
I-005	General	Provide the ability to support management and tracking of railroad agreements required for transportation projects. Please refer to Utility Relocation and Railroad tab for additional detailed requirements.	Customization	Medium		Right-of-Way and Land Management, Contract Management	N/A	During the project's elaboration phase, the Aurigo Project Manager and Business Analyst will help the Agency identify the requirements and business rules required to support the management and tracking of railroad agreements required for transportation projects. Masterworks' forms, workflows, and reports will be configured to meet the requirements and business rules for these types of contracts.
I-006	General	Provide the ability to integrate WVDOT right-of-way and utility relocation functions with other relevant WVDOT and wVOASIS ERP functions, including but not limited to: - HUB, - wVOASIS Advantage Fixed Assets, - Transportation Asset Inventory, - ProjectWise, - BRIM, - ESRI GIS, - Facilities Management, - wVOASIS Accounts Payable, - wVOASIS General Ledger, - wVOASIS Human Resource Management, and - wVOASIS Procurement.	Customization	Large		Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Masterworks comes with a flexible API system for integration with nearly all third-party software, creating a truly enterprise-level data store for seamless project management, asset management, facility management, financial management, 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.

WV DOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

A	B	C	D	E	F	G	H	I
Q. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
V-007	Workflow	Provide the ability to support the definition of workflows to manage electronic review and approval of title information, appraisals, acquisitions, negotiations, relocation of displaces, utility relocation, railroad agreements, etc. These workflows will define and electronically route users through the steps for completing the defined work activities and obtain the necessary approvals for the various right-of-way acquisition, utility relocation and railroad agreement business processes.				Right of Way and Land Management	N/A	Masterworks provides more workflow flexibility and capabilities than any other application. Masterworks provides an advanced workflow engine that has an easy-to-use visual interface. The workflow engine will route workflows based upon the Agency's specific business processes. The Agency's system administrator will have the ability to configure workflows to meet the Agency's specific requirements for any right of way or land management project phase: Create simple or multistage workflowsSupport manual, ball-in court routing between usersPerform complex validation rules using expressionsGenerate notifications via email and in-app task listsPush or fetch data from other systemsTrigger secondary or parallel workflows automaticallyTrack approval history
V-008	Workflow	Provide the ability to define and generate workflows for each of the steps in a business process based on user-defined business rules.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' Workflow Builder will give the Agency the ability to generate workflows for each step in a business process based on user-defined business rules.
V-009	Workflow	Provide the ability to utilize a project specific distribution list to manage the required electronic review and approval for each project.	Off the Shelf			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Distribution lists for electronic reviews and approvals are determined based on the user roles that are part of the workflow stage and invited users who will be in the project's specific distribution list. Project users with specific roles will be included in the distribution list.
V-010	Workflow	Provide the ability to report and display the status of a workflow process (i.e., steps approved, who needs to review next, and so on) in a summary/dashboard format. For example: A team lead or other manager may need to review the overall process status. This may also be used for performance monitoring.	Off the Shelf			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	The status of a workflow and its individual processes can be displayed in Masterworks by viewing the workflow's history. Overall Dashboard of Workflow Status can also be configured.
V-011	Workflow	Provide the ability to trigger a workflow based on user-defined business events including completion of activities in the system or the uploading of various documents (e.g., uploading an appraisal file to the system).	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Business rules can be configured in Masterworks to trigger workflows for sending notifications or automatically assigning tasks upon stage change of a form, creating a document, or other business objects subject to a workflow. These events include the creation of a form, field update, project completion, and so forth.
V-012	Workflow	Provide the ability to enter and support comments added during the workflow at each approval step for internal use. These comments should progress with the workflow to the next approver identifying the person who made the comment.	Off the Shelf with Configuration			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	The workflow functionality in Masterworks includes the ability for users to add notes in a comments log at each stage of a workflow. When actions are performed in the system, workflows can determine if the user completing an action is required to add information to the comments log. Follow-on users can receive notifications and promptly take actions pending on them. They, too, can enter notes in the comments log if required. The "My Tasks" feature in Masterworks will inform users of any action items pending on them.
V-013	Workflow	Provide the ability to support workflow customization for a specific project in each of the workflow steps. The customized workflow shall be done only by authorized WV DOT users. That is, modified/different workflows may be required for appraisal, acquisition, and relocation processes for the same project and the workflow may be different for a project on which work is performed by internal staff versus consultants.	Off the Shelf with Configuration			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	User-defined workflows can be configured in Masterworks to meet the Agency's specific business rules. The workflow engine can create workflows that branch based on the type of process, an action taken, the data entered into a field on a form, or the user's role permissions. Separate workflows can be created for appraisal, acquisition, and relocation processes. A workflow can branch depending on the role permissions (e.g., internal vs. external user). Additional branching stages can automatically be added to a workflow based on a calculated limit being reached (e.g., the cost of an acquisition is over \$10M, so an executive director's approval is required).
V-014	Workflow	Provide the ability to assign WV DOT staff members or consultants working on a project to a workflow individually or by group for each project and for specific workflows.	Off the Shelf			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Masterworks' workflow engine can create workflows for specific projects or types of projects. User roles and permissions can be created to allow a user to access and perform actions in a specific project or type of project once the role is assigned to the user. A user will have the authorization to perform actions defined by a project's workflow because the user's role permissions allow them to access the specific project or type of project.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

B	C	D	E	F	G	H	I	
#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
015	Workflow	Provide the ability to allow authorized users to define the target time for completing a specific workflow step and the entire workflow process. That is, WVDOT may want to establish a target objective that all appraisal reviews are completed within a certain number of days of the appraisal being uploaded to the system.	Off the Shelf			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Masterworks' workflow engine can create workflows that define the length of time each stage of a workflow should take to be completed. Notifications can be sent to the appropriate stakeholders when the due date for a workflow stage is drawing near or when the due date has been exceeded.
016	Workflow	Provide the ability to notify users regarding the designated "approve by" date upon their being assigned a workflow step to complete.	Off the Shelf with Configuration			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Masterworks' workflow engine can send notifications and emails regarding workflow events that include details about the process the workflow is tracking, the actions taken, the pending actions, and any other information needed to make informed decisions. As an example, an action due date can be calculated as (< today's date> - <X calendar days>), or it can be a date manually entered in a form field.
017	Workflow	Provide the ability to track and display the total elapsed time from the start to end of a workflow process, as well as, the ability to display time remaining to action a workflow step and complete the entire workflow process based on the user-defined timelines for the individual process step and the entire process workflow.	Off the Shelf			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Total time taken on Workflow Process can be tracked using the Workflow History against each record and a report can be run against the same.
018	Workflow	Provide the ability to alert an individual assigned to a workflow step when an "approve by" date associated with completion of the workflow step has passed or is within a user-definable timeframe for completion. The method of alert is to include both an email and a notification within the right-of-way solution.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' workflow engine can send notifications and emails regarding workflow events that include details about the process the workflow is tracking, the actions taken, the pending actions, and any other information needed to make informed decisions. For example, a notification and an email can be sent when a workflow's "approve by" date associated with completion of the workflow step has passed or is within a user-definable timeframe for completion.
019	Workflow	Provide the ability to allow an authorized user to obtain a report of pending workflow steps or workflows which have not been completed within the targeted timeline. This report should have the ability to be filtered by process area (appraisal, negotiation, displacee relocation, utility relocation, and so forth) and by project.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	Masterworks' report builder can be used to create status reports using workflow history data. As a workflow is run and each stage is completed, Masterworks maintains the timestamps and history of the actions taken and the users who completed the actions. Pending workflows and workflow steps can be displayed on the screen. The data can be further filtered by process area and then output to a report.
020	Workflow	Provide the ability to create a monthly management report with summary statistics concerning performance against target milestones for completing work steps and workflow processes for the month and fiscal year to date. This report should have the ability to be filtered by process area (appraisal, negotiation, displacee relocation, utility relocation, and so forth) and by project.	Off the Shelf with Configuration			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Masterworks' report builder can create monthly management reports with summary statistics for a month or fiscal year to date. The reports can show performance against target milestones for actions such as completing work steps and workflow processes. The monthly management reports can be displayed on the screen. The data can be further filtered by process area and then output to a report.
021	Workflow	Provide the ability to generate a report of all missed dates and delayed approvals for the month or fiscal year to date. This report should have the ability to be filtered by process area (appraisal, negotiation, displacee relocation, utility relocation, and so forth) and by project.	Off the Shelf with Configuration			Full Lifecycle Construction Management, Right of Way and Land Management	N/A	Masterworks' report builder can create reports showing missed dates and delayed approvals for a month or fiscal year to date. The data can be further filtered by process area and then output to the screen or a report.
022	Workflow	Allow for electronic signatures to approve all system actions and the generation of all required notification letters. This electronic signature should be based on the user authenticating themselves to the system through their login information.	Third Party			Full Lifecycle Construction Management, Right of Way and Land Management	DocuSign	Electronic Signatures can be done in the system using integration with DocuSign, the customers DocuSign license is used to integrate with Masterworks which will allow an electronic signature of the logged-in user to be placed on any document.
023	GIS Integration	Provide a full-featured GIS viewer within the right-of-way and utilities function which integrates with WVDOT's existing ESRI ArcGIS environment.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks has the ability to integrate with the ESRI ArcGIS platform. Location-related forms such as Project location, issue, and risk forms have map controls enabled by default. All project locations can be viewed together in an enterprise map viewer.
024	GIS Integration	Provide the ability for users to utilize a GIS viewer within the right-of-way solution to view all project information such as the proposed alignment, ROW boundary, parcels, ownership, etc., including the ability to select a parcel and drill down into attribute information available.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks comes with default GIS configurations that allow geo-tagged objects for all project information such as the proposed alignment, ROW boundary, parcels, ownership, etc. The consolidated project information can be viewed at the enterprise level. The GIS search functionality can be enhanced to search by coordinates. Users will be able to select a parcel and drill down into attribute information stored in multiple layers.
025	GIS Integration	Provide the ability to display one or more parcels or required utility relocations on a project meeting specific user-defined criteria on a map from within the GIS viewer in the right-of-way software solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Aurigo Masterworks has built-in integration capabilities with ESRI GIS. Locations marked in GIS can be viewed in Masterworks' GIS Map Viewer. The user can mark parcels and any other utility relocations against a project-specific map.

WVDOT Right-of-Way, Utilities and Railroad Management System

Right-of-Way (ROW) Requirements

A	B	C	D	E	F	G	H	I
Q-#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
I-026	GIS Integration	Provide the ability to spatially map a specific parcel or utility relocation/railroad agreement or set of parcels or utility relocations/railroad agreement that meets a set of user-defined criteria from within the right-of-way and utilities functions of the right-of-way solution. While looking at a list of parcels or utility relocations or detailed information about an individual parcel or utility relocation, the user must be able to select "map" and see the location of the parcel or utility relocation displayed spatially by a GIS viewer within the right-of-way solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Aurigo Masterworks has the ability to integrate with ESRI GIS. Parcels and locations can be marked on a map against projects in Masterworks, and users can see relevant utility relocations. This information can be seen at an enterprise level in a consolidated view which shows locations marked against all projects.
I-027	GIS Integration	Provide the ability to enter a set of selection criteria for any pre-defined report and request that the results be displayed spatially by a GIS viewer within the right-of-way solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	In Masterworks, the Enterprise Map Viewer allows users to have pre-defined selection criteria to filter records and what is shown on a map.
I-028	GIS Integration	Provide the ability to enter a set of selection criteria for an ad-hoc query of parcel or utility relocation/railroad agreement information and request that the results be displayed spatially by the GIS viewer within the right-of-way and utilities function.	Customization	Small		Right of Way and Land Management, Contract Management	N/A	Masterworks will allow users to filter/query the RoW and Utility/RR project records and show the associated parcels and locations in the Enterprise Map Viewer. Non-standard queries and the ability to use multiple filters concurrently will need to be customized.
I-029	GIS Integration	Provide the ability to select a parcel or utility relocation/railroad agreement from a map in a GIS viewer within the right-of-way and utilities functions in the right-of-way solution and drill down to see detailed information about the parcel or utility relocation within the right-of-way solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Users will be able to select a parcel or utility relocation/railroad agreement from the GIS viewer map in the right-of-way and utility features of Masterworks and drill down into attribute information stored in multiple layers.
I-030	GIS Integration	Provide the ability for the user to select an area of interest from within WVDOT's GIS application and request that all parcels, utility relocations or railroad agreements in that area meeting certain user-defined criteria stored in the right-of-way and utilities function be spatially displayed on a map within WVDOT's GIS solution.	Customization	Medium		Right of Way and Land Management	N/A	Masterworks will allow users to use the Enterprise Map Viewer to select an area of interest, use the selection as a means to filter/query the RoW projects, and then show associated parcels and locations on the map. This functionality must be customized.
I-031	GIS Integration	Provide the ability to select one or more parcels, utility relocations or railroad agreements from a map within an area displayed in the WVDOT GIS application and drill down to see the detailed information about the specific parcel or parcels within the right-of-way solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	The GIS map viewer in Masterworks has the ability to display multiple parcels on a map. Users can select a parcel and drill down to see project information stored in multiple layers.
I-032	Forms Management	Provide the ability to define, store and auto-populate templates for various forms and letter templates which are used in the various right-of-way/utilities/railroads processes. The system should have the ability to auto-populate, but also have the ability for manual entry based on user-specified parameters (e.g., project name, parcel, property owner, utility company, utility company contact, and so on).	Off the Shelf			Right of Way and Land Management	N/A	Masterworks provides this capability along with mail merge functionality. This includes the ability to populate data collected manually, either via form or workflow. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what specific forms, templates, and letters must be configured.
I-033	Forms Management	Provide the ability to create various pre-defined WVDOT forms and notification letters based on user-defined triggers or business events.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	The Agency can use Word to create templates for the Agency's pre-defined forms and notification letters and store them in the Masterworks Library. Masterworks' Workflow Engine can initiate the creation of forms and letters using configured workflows using West Virginia DOT-defined triggers and business events. Masterworks' Mail Merge functionality can then create finished forms and letters using selected data from the database. During the configuration phase of the implementation project, the Aurigo Team will assist the Agency in setting up its specific forms, templates, and letters.
I-034	Forms Management	Provide the ability to generate letters with the appropriate letterhead/logo and contact information based on the location of the assigned appraiser and/or right-of-way agent. Depending on the assigned team member, this would be by central office, district office, or consultant.	Off the Shelf with Configuration			Aurigo Masterworks Cloud Platform	N/A	The Agency can use Word to create templates for the Agency's pre-defined forms and notification letters for each central office, district office, or consultant. The information in the records chosen by the user or a workflow can determine what template is used to create a form or letter. Masterworks' Mail Merge functionality can then create finished forms and letters using selected data from the database. During the configuration phase of the implementation project, the Aurigo Team will assist the Agency in setting up its specific forms, templates, and letters.
I-035	Forms Management	Provide the ability to store the date each letter or form was requested and generated by the system and the various parameters included in the letter to allow re-generation within the right-of-way system of a copy of the letter if required.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard functionality in Masterworks.
I-036	Forms Management	Integrate with ProjectWise to store the actual letter generated by the system.	Customization	Small		Aurigo Masterworks Cloud Platform	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with ProjectWise.
I-037	Forms Management	Integrate with ProjectWise to allow a user to obtain a list of forms/document from within the right-of-way solution that are stored in ProjectWise meeting certain user-defined criteria and then support retrieval of each letter/form selected by the user for viewing/printing.	Customization	Small		Aurigo Masterworks Cloud Platform	N/A	The Masterworks API fully supports bidirectional Document integration. The ProjectWise connection and the document filtering will require a small customization effort.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-038	Project Information	Integrate with the WVDOT HUB application to establish/open the right-of-way and utilities phase of a construction project, bringing available project identification and attribute information from HUB and populating the right-of-way solution.	Customization	Small		Right of Way and Land Management, Full Construction Project Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with the WVDOT HUB. The customization effort will be dependent on the Agency's business requirements and the WVDOT HUB's integration capabilities.
-039	Project Information	Integrate with the WVDOT HUB application to obtain updates to project information.	Customization	Small		Right of Way and Land Management, Full Construction Project Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with the WVDOT HUB. The customization effort will be dependent on the Agency's business requirements and the WVDOT HUB's integration capabilities.
-040	Project Information	Provide the ability to allow for update based on user-defined business rules of certain right-of-way, utility relocation and railroad related project information in the right-of-way and utilities solution, while restricting the ability to update most project information for which HUB is the system of record.	Off the Shelf with Configuration			Right of Way and Land Management, Full Construction Project Management	N/A	The Agency will control what information on forms can be modified or must remain static and when that information is either pushed or pulled through the API layer.
-041	Project Information	Provide the ability to capture and store right-of-way acquisition cost estimates for a project. These cost estimates should be able to be entered project-level or based on a roll-up of cost estimates for the individual parcels.	Off the Shelf			Right of Way and Land Management	N/A	This is standard functionality in Masterworks' Right of Way product.
-042	Project Information	Provide the ability to maintain a history of right-of-way cost estimates for a project. All changes should be displayed below the current cost estimate, such that details can be viewed by clicking on/selecting the old estimates. Access is to be restricted based on project and user's role and responsibility.	Off the Shelf			Right of Way and Land Management	N/A	This is standard functionality in Masterworks' Right of Way product.
-043	Project Information	Integrate with WVDOT HUB and/or wvOASIS to obtain and support tracking of actual acquisition costs for a project based on acquisition activity.	Off the Shelf with Configuration	Small		Right of Way and Land Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with the WVDOT HUB or wvOASIS. The customization effort will be dependent on the Agency's business requirements and the integration capabilities of WVDOT HUB and wvOASIS.
-044	Project Information	Provide the ability to export project status updates from the right-of-way software solution into HUB to update project information that has been added/modified within the right-of-way acquisition function.	Customization	Small		Right of Way and Land Management, Full Construction Project Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with the WVDOT HUB. The customization effort will be dependent on the Agency's business requirements and the WVDOT HUB's integration capabilities. Masterworks can also export project status information in Excel, CSV, and XML formats.
-045	Project Information	Provide the ability to export information from the right-of-way solution to HUB to update milestone dates based on changes to dates for individual parcels and so on, which may impact overall dates in the right-of-way phase.	Customization	Small		Right of Way and Land Management, Full Construction Project Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with the WVDOT HUB. The customization effort will be dependent on the Agency's business requirements and the WVDOT HUB's integration capabilities. Masterworks can also export project status information in Excel, CSV, and XML formats.
-046	Project Information	Provide the ability to define and maintain multiple distribution lists of project participants; these distribution lists will include names, email addresses, and agency unit or organization information (WVDOT HQ/District, company name for consultants, etc.). These distribution lists will be specific for each project.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard User Management and Vendor Management functionality in Masterworks.
-047	Project Information	Provide the ability to integrate with the wvOASIS HRM system to support/validate the creation and maintenance of a project specific distribution list.	Customization	Small		Aurigo Masterworks Cloud Platform	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with wvOASIS HRM. The customization effort will be dependent on the Agency's business requirements and wvOASIS HRM's integration capabilities.
-048	Project Information	Provide the ability to add and maintain non-employee resources such as consultant appraisers and right-of-way agents to be added to a project-specific distribution list.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard User Management and Vendor Management functionality in Masterworks.
-049	Parcel Information	Provide the ability to enter, store, and display multiple potential parcels for acquisition on each project.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to associate and display one or many parcels for an acquisition project.
-050	Parcel Information	Provide the ability to enter, store, and display legal descriptions of parcels and other supplemental description information.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' Right of Way product will give the Agency the ability to enter, store, and display legal descriptions of parcels. This is core functionality in the software.
-051	Parcel Information	Provide the ability to enter, store, and display parcel location information in various formats (examples: geospatial coordinates, physical address, station & offset)	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter, store, and display ArcGIS location information. This is core functionality in the software.
-052	Parcel Information	Provide the ability to locate a parcel using multiple coordinate systems (address, geospatial coordinates, etc.).	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to locate a parcel using multiple coordinate systems. This is core functionality in the software.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B Sub-Category	C Business (Functional) Requirement	D Vendor Response	E Customization Estimate, if Applicable	F Capability Planned for Future Release	G Core Module(s)	H Third Party Solution(s)	I Comments/Notes
053	Parcel Information	Provide the ability to enter, store, and display parcel ownership information including owner names, spouses of owners, address, daytime/evening phone numbers (home, work, and mobile), email address, and the name in which taxes are assessed.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter, store, and display parcel ownership information, including owner names, spouses of owners, address, daytime/evening phone numbers (home, work, and mobile), email address, the name in which taxes are assessed, and other ancillary information. All RoW forms are highly configurable.
054	Parcel Information	Provide the ability to enter, store, and display identification of multiple ownership interests in a parcel (e.g., surface rights, mineral rights, and so forth).	Off the Shelf			Right of Way and Land Management	N/A	Masterworks' Right of Way product comes with standard forms for entering, storing, and displaying information for multiple ownership interests in a parcel. All RoW forms are highly configurable.
055	Parcel Information	Provide the ability to enter, store, and display liens including deeds of trust, vendor liens, judgment liens, etc.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter, store, and display information about liens, including deeds of trust, vendor liens, judgment liens, etc. All RoW forms are highly configurable.
056	Parcel Information	Provide the ability to enter, store, and display title research reports in the system.	Off the Shelf			Right of Way and Land Management, Document Management	N/A	Masterworks' Right of Way product supports the ability to create, store, and display title research reports. Masterworks has built-in document viewers so stakeholders can view the reports. Masterworks' document management functionality will allow the Agency to store the reports and other documents in the document repository.
057	Parcel Information	Provide the ability to integrate with ProjectWise to link to, store and display title research reports.	Off the Shelf with Configuration			Aurigo Masterworks Cloud Platform	N/A	Masterworks supports the ability to integrate with ProjectWise via Masterworks' Open APIs.
058	Parcel Information	Provide the ability to enter, store, and display other parcel information including type of property (residential/commercial); types of utilities; and whether there are cemetery burial sites, underground storage or septic systems on the property, and a description of these if they are on the property.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter and store any parcel information it deems necessary. All RoW forms are highly configurable.
059	Parcel Information	Provide the ability to enter, store, and display information about oil, gas or coal leases including contact information for the lessee and the date of the expiration of the lease.	Off the Shelf with Configuration			Right of Way and Land Management, Contract Management	N/A	Forms, workflows, and reports for entering, storing, and displaying oil, gas, or coal lease information can be configured in Masterworks, including contact information for the lessee and the date of the expiration of the lease. All RoW forms are highly configurable.
060	Parcel Information	Provide the ability to enter, store, and display parcel tenant information including name and contact information, whether there is a lease, the beginning and ending dates of the lease, whether there is an option to renew, whether there are any tenant owned improvements and a description of these improvements.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter and store any parcel tenant information it deems necessary. All RoW forms are highly configurable.
061	Parcel Information	Provide the ability to enter, store, and display the method by which ownership of the property was obtained by the current owner.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter, store, and display the method by which ownership of the property was obtained by the current owner. All RoW forms are highly configurable.
062	Parcel Information	Provide the ability to enter, store, and display the grantor; grantee; date of deed; deed book and page; declaration of value; magisterial district; tax map and parcel if the property was obtained by the current owner by deed.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter, store, and display the grantor; grantee; date of the deed; deed book and page; declaration of value; magisterial district; tax map and parcel if the current owner obtained the property by deed. All RoW forms are highly configurable.
063	Parcel Information	Provide the ability to enter, store, and display from whom property was inherited; the will book and page; the executor of the estate; the executor's contact information; the previous deed including deed book and page and date the deed was transferred for property which was inherited and for which there was a valid will.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will allow the Agency to enter, store, and display from whom the property was inherited; the will book and page; the executor of the estate; the executor's contact information; the previous deed including deed book and page, and date the deed was transferred for property which was inherited and for which there was a valid will. All RoW forms are highly configurable.
064	Parcel Information	Provide the ability to enter, store, and display decedent's date and place of death and a list of heirs and contact information in scenarios where the property was inherited and there is no valid will.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display any decedent's information the agency deems necessary. All forms are highly configurable by the agency.
065	Parcel Information	Provide the ability to enter, store, and display potential parcel displacee (relocation) information.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter and store any potential parcel displacement information. This is an out of the box form in the solution.
066	Parcel Information	Provide the ability to enter, store, and display other free-form descriptive information about the parcel.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter and store any free-form parcel information the agency deems necessary. All forms are highly configurable by the agency.
067	Parcel Information	Provide the ability to integrate with the WVDOT CAD environment when a parcel is initially set-up to import the ownership index, right-of-way plan sheets, right-of-way map data, and construction plan sheets and store and link this data to the appropriate parcel.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to integrate with WVDOT's CAD environment to pull the parcel information specified in this requirement.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
068	Parcel Information	Provide the ability to integrate with the WVDOT CAD environment to support automatic update of parcel data based on any changes to the right-of-way map, right-of-way map data and construction plans after the parcel has been defined in the right-of-way and utilities function.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to integrate with WVDOT CAD environment. Aurigo will work with WVDOT to understand the data required to be moved between the two environments.
069	Parcel Information	Provide the ability to maintain all work that has been done on a parcel prior to the parcel being revised due to plan modifications. For example, a parcel may be modified due to ownership changes, area changes, or property type changes from residential to commercial, etc.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to log mortgaged field values that the DOT can retrieve via the audit log of any form and or workflow.
070	Parcel Information	Provide the ability to integrate with the WVDOT CAD environment to allow linking to and displaying source data files associated with a parcel within the WVDOT CAD environment.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to integrate the WVDOT CAD environment and link data files that are associated with any parcel.
071	Parcel Information	Provide the ability to search for any parcel based on various user-defined criteria such as project, parcel location, owner, displaces, assigned WVDOT staff, etc.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to search for any Document and or Form across the entire solution. The user has control of the filter criteria associated to the search.
072	Parcel Information	Provide the ability to split a parcel into multiple sub-parcels to define property interests being acquired and record tenant-owned interests to the parcel. For example, a parcel may have a restaurant, a mall, and/or an office building on it, requiring relocation payments to multiple tenants.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to create sub-parcels for defined property interests. Additional requirements are needed to fully understand the agencies multiple tenants payments.
073	Parcel Information	Provide the ability to identify sub-parcel information for each project along with the type of interest being acquired (e.g., full ownership, temporary construction servitude, permanent drainage servitude, permanent ROW servitude, etc.). This should also identify and link to parcel tenants interest (e.g., lease hold interest).	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to identify sub-parcel information that is associated to a project that includes property interest types.
074	Parcel Information	Provide the ability to assign responsibility for each parcel or various functions for each parcel (such as appraisal and negotiation) to specific team members from the list of team members working on a particular project.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to assign responsibility for each parcel via the structured workflow that is associated to the appropriate parcel form.
075	Parcel Information	Provide the ability to enter, store, and display track cost estimates for the acquisition of a parcel such as the types of costs (acquisition, relocation, etc.). This includes versioning, i.e., the ability to modify an existing cost estimate and retain the original version. All changes should be viewable along with the current cost estimate, such that details can be viewed by drilling down into older estimates. Access to this data should be restricted based on project and user role and responsibility.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter and store any cost estimates the agency deems necessary. All forms are highly configurable by the agency
076	Appraisal	Provide the ability to assign the appraisal of a parcel to a WVDOT staff member or consultant.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to assign appraisals of a parcel by specific user.
077	Appraisal	Provide the ability to assign a WVDOT staff member or consultant review appraiser to a parcel.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to assign a user or staff member to review and or approve the appraisal. The Workflow Engine of Masterworks can be further configured to meet the business needs of the agency.
078	Appraisal	Provide the ability to notify the assigned staff member or consultant of the appraisal assignment through a system notification and email.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to notify any and all staff members, and or consultants, when assignments are directed to their court. This is core functionality for notifications in Masterworks.
079	Appraisal	Provide the ability to enter, store, and display system appraisal information. This includes all information tied to an appraisal, including parcel, appraisal date, appraiser, valuation, basis for valuation, review appraisers report, etc.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter and store all appraisal information the agency deems necessary. All forms are highly configurable by the agency
080	Appraisal	Provide the ability to enter, store, and display the history of appraisals performed on a parcel by date.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display appraisal history information.
081	Appraisal	Provide the ability to enter, store, and display changes underlying second and subsequent appraisals (such as changes to parcel size, and so on).	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display any appraisal changes. As changes are submitted and the details change the system logs those changes and promotes access to all users with the appropriate permissions.
082	Appraisal	Provide the ability to enter, store, and display flagging a parcel, or part of a parcel, as a potential uneconomic remnant.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display any potential parcel uneconomic remnant of information the agency deems necessary. All forms are highly configurable by the agency
083	Appraisal	Provide the ability to enter, store, and display appraisals prepared and submitted by a property owner.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display appraisals submitted by the owner. All forms are highly configurable by the agency.

WVDOT Right-of-Way, Utilities and Railroad Management System

Right-of-Way (ROW) Requirements

A	B	C	D	E	F	G	H	I
i. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-084	Appraisal	Provide the ability to integrate with ProjectWise to support storing, linking and displaying all documents associated with an appraisal.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to integrate with ProjectWise for storing and or linking Documents that are associated with appraisals. Additional details may be required, which should be provided by WVDOT during the solution implementation phase of the project.
-085	Appraisal	Provide the ability to notify the assigned appraisal reviewer automatically/electronically via a workflow when appraisal information has been entered into the system	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to notify all named users in the solution via the "My Tasks" and or email client. Any email client is supported for email notifications with a quick link to access Masterworks and take action.
-086	Appraisal	Provide the ability to document the review appraisal including the approval or disapproval of the appraisal along with any comments.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to access the fully documented workflow history of all workflows - including comments log.
-087	Appraisal	Provide the ability to return the appraisal to the original appraiser automatically/electronically when required to address any issues identified by the review appraiser.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to route any workflow and supporting the agency's business rules while adhering to all agency's policies and procedures.
-088	Appraisal	Provide the ability to document sign-off on the appraisal by the review appraiser.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to route any workflow and supporting the agency's business rules while adhering to all agency's policies and procedures, including final sign-off
-089	Appraisal	Provide the ability to enter, store, and display recommendations for just compensation in the system, along with all applicable information regarding the review (e.g., review sheet, reviewer).	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display recommendations for compensation and its associated information the agency deems necessary. All forms are highly configurable by the agency
-090	Appraisal	Provide online approval capabilities for authorized users to electronically review and approve just compensation used for initial offer or revised offers.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to present authorized users form information, allowing them to take action. (e.g. review, approve, reject, ect..)
-091	Appraisal	Provide ability to flag parcels based on appraisal approval as ready for negotiation and send an automatic/electronic email notification and a system notification to the assigned negotiator for a parcel.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to promote appraisal approval based on Workflow generated notifications. This keeps the agency proactive in leu of reactive to time sensitive processes.
-092	Appraisal	Provide ability to monitor and report on the status of appraisals by project (e.g., appraisal pending, appraisal prepared, appraisal approved, appraisal waiting for resubmission, on hold, etc.).	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to monitor and report the status of any and all appraisals. NOTE all processes work in this manner.
-093	Appraisal	Provide ability to automatically/electronically generate an appraisal summary information sheet based on all appraisal information entered in the system.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to generate appraisal summaries based on the information entered. Reports may be further configured to meet WVDOT's specific needs.
-094	Appraisal	Provide ability to track/manage when an extension is granted to the Appraiser or Review Appraiser on a project.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to manage the need to extend an Appraisers review or approval submission. This is supported in the Workflow Engine.
-095	Acquisition-Negotiation	Provide an authorization workflow which utilizes the generated estimates from the Acquisition section to provide a draft authorization request to the Admin Section to initiate the BF-98 process.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to promote an additional process off of its predecessor depending on the action taken by the previous user. Simply stated, BF-98 process could be initiated from an Acquisition authorization.
-096	Acquisition-Negotiation	Integrate with HUB to transmit the authorization following review by the Admin section to Programming for final review and approval within HUB. Provide approval from HUB back to the right-of-way solution.	Customization	Medium		Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Aurigo believes this will be handled by our standard integration capabilities, however, we have marked it as customization as the requirements are not fully understood.
-097	Acquisition-Negotiation	Provide the ability to enter, store and display the dates RW3 Plans are submitted to ROW Division. For example, track the initial date RW3 Plans are received from Engineering, track the dates of any RW3 Plan Revisions along with a summary of the revision.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display any RW3 Plan form of information the agency deems necessary. All forms are highly configurable by the agency to define and support the review and received process.
-098	Acquisition-Negotiation	Provide the ability for users to monitor the status of appraisals to determine when preparation activities for the Acquisition may begin.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability for users to monitor the appraisal status and direct them for when the associated activities for acquisition are to proceed. The is core functionality to our Workflow Engine leveraging reports and dashboards.
-099	Acquisition-Negotiation	Provide the ability to assign a right-of-way agent negotiator to each parcel.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to assign the appropriate right of way negotiator associated to any process.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-100	Acquisition-Negotiation	Provide the ability to automatically/electronically notify the right-of-way agent or negotiator when parcel assignments are made via the right-of-way solution and email.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to notify any agent and/or negotiator when an assignment is pending in their court. This is core functionality to any process configured in the solution.
-101	Acquisition-Negotiation	Provide the ability to generate a 90-day notification letter to property owner based on request by an authorized user and retain document (including issue date) in the system. This letter will typically be issued/sent by a WVDOT district right-of-way agent.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to generate the 90-day notification letter that then can be submitted to the property owner. The solution can leverage the boiler plated Merge and Email document function that is native to the solution.
-102	Acquisition-Negotiation	Provide the ability to generate a 30-day notification letter documenting requirement for property owner to vacate the property based on a request by an authorized user and retain document (including the issue date) in the system. This letter will typically be issued/sent by a district right-of-way agent.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to generate the 30-day notification letter that then can be submitted to the property owner for vacate purposes. The solution can leverage the boiler plated Merge and Email document function that is native to the solution.
-103	Acquisition-Negotiation	Provide the ability to display and print the WVDOT right-of-way questionnaire, which provides on a single-page formatted information about the parcel including location, owners, mineral rights/leases, tenants and deeds, etc.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, display, and print a checklist and or questionnaire.
-104	Acquisition-Negotiation	Provide the ability to enter, store, and display a document acquisition and negotiation activities/ log. This includes the ability for a parcel negotiator to enter all acquisition and negotiation information in the right-of-way solution, including times of contact with owner, offers/promises made, acceptance/rejection or counter offer by owner, location of the conversation, in-person, mail, phone, etc.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display any document or supporting information the agency deems necessary. All forms are highly configurable by the agency.
-105	Acquisition-Negotiation	Provide the ability to enter, store, and display the sex and ethnicity of the property owner for statistical reporting purposes (i.e., minority, non-minority, and/or female).	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display sex and ethnicity of a property owner
-106	Acquisition-Negotiation	Provide the ability to enter, store, and display the approved valuation for negotiation.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the approved valuation for negotiation purposes.
-107	Acquisition-Negotiation	Provide the ability to enter, store, and display the approved valuation for negotiation if owner retains structures.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the approved valuation for negotiation purposes, even if the owner retains structures. All forms are highly configurable by the agency.
-108	Acquisition-Negotiation	Provide the ability to enter, store, and display each negotiating session including key information such as the date, time, place, along with the individuals present.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display each negotiating session that includes key information.
-109	Acquisition-Negotiation	Provide the ability for a user to enter, store, and display a brief summary of the steps which are performed during WVDOT's acquisition process for a parcel.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the steps in a process. This is standard to all process that have been configured in the Workflow Engine.
-110	Acquisition-Negotiation	Provide the ability to enter, store, and display a brief summary of the explanation of the full effect of the take.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Aurigo will configure this capability during the solution implementation phase of the project using its configuration engine.
-111	Acquisition-Negotiation	Provide the ability to enter, store, and display a record of when an offer has been made for land and improvements.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the history and status for land improvements.
-112	Acquisition-Negotiation	Provide the ability to enter, store, and display a record of when an offer has been made to allow owner to retain improvements and appurtenances.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display all record of offers that have been submitted to the owner(s).
-113	Acquisition-Negotiation	Provide the ability to enter, store, and display a record of when there has been a counter-offer (if any).	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display all records even when a counter offer has been made (if any).
-114	Acquisition-Negotiation	Provide the ability to enter, store, and display the person a right-of-way pamphlet was delivered to and the date provided.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the information captured for pamphlet delivery including date provided. All forms are highly configurable by the agency.
-115	Acquisition-Negotiation	Provide the ability to enter, store, and display the person a right-of-way relocation brochure was delivered to and the date provided.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the information of relocation brochure and the date provided. All forms are highly configurable by the agency.
-116	Acquisition-Negotiation	Provide the ability to enter, store, and display the person to whom the copy of the option was delivered to and the date provided.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the copy of the option that was delivered and the date provided. All forms are highly configurable by the agency.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B	C	D	E	F	G	H	I
	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-117	Acquisition-Negotiation	Provide the ability to enter, store, and display the person to whom the statement of compensation was delivered to and the date provided.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the statement of compensation including the date delivered and provided. All forms are highly configurable by the agency.
-118	Acquisition-Negotiation	Provide the ability to enter, store, and display the replacement housing amount and to whom this amount was given to along with the date it was provided.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the replacement housing amount and who it was given to and the date provided.
-119	Acquisition-Negotiation	Provide the ability to enter, store, and display the reasons a settlement could not be reached, if this occurs.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the settlement reason could not be reached.
-120	Acquisition-Negotiation	Provide the ability to enter, store, and display any owner's comments or those of the owner's representative.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the owner's or representative comments.
-121	Acquisition-Negotiation	Provide the ability to enter, store, and display as a free-form text field any other relevant information from the negotiations.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display any free-form field of data as it relates to negotiating.
-122	Acquisition-Negotiation	Provide the ability to enter, store, and display a property owner's response to an offer — acceptance or rejection.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the owner's response to an offer no matter the status.
-123	Acquisition-Negotiation	Provide the ability to generate a negotiator's certification based on property owners acceptance of an offer and a request by assigned right-of-way agent.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to generate a negotiator's certification that is based on the owner's acceptance of an offer. Mail Merge is the best solution for this requirement as the system develops standardization of deliverables.
-124	Acquisition-Negotiation	Provide the ability to record the amount of a proposed administrative settlement (amount of offer agreed to in excess of documented just compensation) and the basis for the recommendation for the administrative settlement.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to record the amount of any proposed settlement. This would include the basis for the recommendation.
-125	Acquisition-Negotiation	Provide the ability to route administrative settlement for approval via workflow based on user-defined business rules. Provide reviewers/approvers with the option to drill down and see specific details concerning the parcel acquisition (appraisal, negotiations record, etc.) as part of their review process.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to route settlement information in approval steps necessary via an electronic approval solution that supports the Agency's business rules. Users can drill down to the record for details that they require
-126	Acquisition-Negotiation	Provide the ability to store and link to documentation as required by WVDOT business rules as part of the electronic review for administrative settlements. In administrative settlements, a memorandum from the District Right-of-Way Manager detailing justification for settlement must be included as part of the review package. Administrative Settlements must be reviewed and approved by the Right-of-Way Director.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to store and link documents as required by the business rules. This statement ring true no matter the form type - settlements, memos, ect...
-127	Acquisition-Negotiation	Provide the ability to enter, store, and display the assignment of a closing attorney.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the assignments of the closing attorney.
-128	Acquisition-Negotiation	Provide the ability to enter, store, and display a scheduled closing date.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the scheduled closing date.
-129	Acquisition-Negotiation	Provide the ability to integrate with the wvOASIS accounts payable function to initiate payment request for accepted offer. This should include preencumbrance for acquisition amount against project and project phase. This must include capability to generate multiple warrant requests if property has multiple property owners, trusts, amounts due on mortgage to bank, etc.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to integrate with the agency's financial system to notify of payments to be made. This would include the capability of multiple warrants and owners. The integration will be performed during the project implementation phase.
-130	Acquisition-Negotiation	Provide the ability to calculate and document a property owner claim for pro-rata share of taxes paid by the property owner on portion of property acquired by WVDOT.	Customization	Medium		Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way could support the calculation of property taxes paid on a pro-rata amount. Additional information is required to provide level complexity and customization effort.
-131	Acquisition-Negotiation	Integrate with the wvOASIS accounts payable function to initiate payment request to reimburse the property owner for their pro-rata share of taxes paid on property acquired by WVDOT. This includes creating the appropriate pre-encumbrance on the project and project phase.	Off the Shelf with Configuration			Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way could support the calculation of property taxes paid on a pro-rata amount. Additional information is required to provide level complexity and customization effort.
-132	Acquisition-Negotiation	Provide the ability to generate negotiator's progress report for a specific month, or other user-defined period. This report will document assigned parcels by project and parcel number, whether it is a central office or district project, and the status of each parcel including date of deed/option; amount of deed/option; targeted or actual closing date; date of request for condemnation; amount deposited in court; and date of right of entry.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to generate negotiator's progress for each month, quarter or year. These metrics will be displayed via a report and or dashboard.
-133	Acquisition-Negotiation	Provide the ability to automatically/electronically alert and provide notice via email and via the right-of-way solution to the assigned WVDOT project manager and the district right-of-way manager, and other users based on user-defined business rules to flag when parcel acquisition dates are slipping from plan by more than a user-defined set of days or a certain user-defined % of parcels are not acquired.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to notify all stakeholders when Ball-in-Court items are slipping past their defined due dates. Auto notifications via email is a standard feature/function in the Masterworks solution.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B Sub-Category	C Business (Functional) Requirement	D Vendor Response	E Customization Estimate, if Applicable	F Capability Planned for Future Release	G Core Module(s)	H Third Party Solution(s)	I Comments/Notes
-134	Acquisition-Negotiation	Provide the ability to enter, store, and display the completion of a closing process.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the closing process and all pertinent information associated. This would/could include an official checklist prior to official close out. All forms are highly configurable by the agency.
-135	Acquisition-Negotiation	Provide the ability to enter, store, and display the date on which possession is taken on the property.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the date of which possession was taken on the property.
-136	Acquisition-Negotiation	Provide the ability to enter, store, and display the date on which keys to structures was collected, and by whom.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display date of which keys were collected and any other ancillary information.
-137	Acquisition-Negotiation	Provide the ability to enter, store, and display date and time of the ordering and completion of required asbestos inspection were done.	Off the Shelf			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the ordering and completion of any inspection, including asbestos.
-138	Acquisition-Negotiation	Provide the ability to enter, store, and display the scheduled demolition date and firm performing the demolition.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the demolition scheduled date and the firm responsible. All forms are highly configurable by the agency.
-139	Acquisition-Negotiation	Provide the ability to enter, store, and display the actual date of completion for demolition.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks Right of Way provides the DOT the ability to enter, store, and display the actual date of the scheduled demolition. All forms are highly configurable by the agency.
-140	Acquisition-Negotiation	Integrate with BRIM where required to add property to the BRIM database for insurance purposes. This applies in cases of non-highway use/uneconomic remnant or if a structure is remaining for some period of time.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way could support the integration with BRIM for insurance purposes via our open API's. Additional information is required to provide level complexity and configuration effort.
-141	Acquisition-Negotiation	Integrate with the wvOASIS fixed asset function to add assets as required to the fixed asset register. This applies in cases of non-highway use/uneconomic remnant or if a structure is remaining for some period of time.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way could support the integration with OASIS and fixed assets via our open API's. Additional information is required to provide level complexity and configuration effort.
-142	Acquisition-Negotiation	Integrate with the ERP transportation asset inventory function to add all non-highway use assets to the facilities register within the transportation asset inventory function. Integration should generate building number based on WVDOT business rules.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way could support the integration with ERP Transportation Asset Inventory via our open API's. Additional information is required to provide level complexity and configuration effort.
-143	Acquisition-Negotiation	Support tracking of the cost of cure to ensure damages payments to a property owner are not subject to taxes. The right-of-way system should first integrate with the wvOASIS accounts payable function to create a vendor marked without a 1099 flag and then integrate with the wvOASIS accounts payable function to create the payment voucher.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way could support the integration with OASIS and damage payments via our open API's. Additional information is required to provide level complexity and configuration effort.
-144	Relocation	Provide the ability for users to be able to begin a Conceptual Relocation Plan as soon as the request is received from Engineering/Acquisition for which parcels on which to obtain Appraisals & Title Searches. This will allow the Relocation team to know in advance which parcels are expected to have relocations associated with them.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right of Way provides the DOT the ability to begin a conceptual relocation plan that includes all parcel that are included in the need to complete an appraisal and title search.. All forms are highly configurable by the agency.
-145	Relocation	Provide the ability to enter, store, and display relocation owner information at the time a site inspection is performed, including the relocatee business or individual name, address, contact number, FEIN/SSN, Occupancy Code/Category, etc.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks Right-of-Way product will provide the Agency with the ability to enter, store, and display all fields defined for owner relocation information. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-146	Relocation	Provide the ability to enter, store, and display/monitor the status of appraisals, to determine when preparation activities for the relocation can begin.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter, store, and display/monitor the status of all appraisals so that relocation activities can proceed. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-147	Relocation	Provide the ability to enter, store, and display information regarding the current residential and/or non-residential conditions to establish a requirements baseline for replacement properties & location.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter, store, and display current residential conditions to establish requirements for baseline replacement properties. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-148	Relocation	Provide the ability for end-users who manage relocations to record and maintain possible solutions for relocatees.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to manage relocations and maintain solutions for relocatees. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-149	Relocation	Provide the ability to enter, store, and display Title, Appraisal, and all other pertinent information associated with the project to assist in determining feasible alternative locations for relocatees.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter, store, and display titles and appraisals and any other pertinent information. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B Sub-Category	C Business (Functional) Requirement	D Vendor Response	E Customization Estimate, if Applicable	F Capability Planned for Future Release	G Core Module(s)	H Third Party Solution(s)	I Comments/Notes
-150	Relocation	Provide the ability to enter and maintain multiple replacement options, including basic property information, building descriptions, utilities, rental adjustments, floor plans, and safe and sanitary standards for residential relocatees.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter and maintain replacement options. This includes all basic property and other ancillary information required. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-151	Relocation	Provide the ability to enter and maintain online questionnaire information, including Interview Date, Supplemental Determination Date and Amount, Offer of FMV Date, Relocation Offer Date, Vesting Date, Ninety Day Notice Date, Thirty Day Notice Date, Date Relocated/Vacated, and Remarks regarding the Relocation.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter and maintain questionnaires and all associated information fields. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-152	Relocation	Provide the ability to enter, store, and monitor/display payments made to tenants and vendors during the relocation process, such as closing payments or any payments that may happen, so they can complete the relocation process.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter, store, and display payments made to tenants for relocation purposes. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-153	Relocation	Provide the ability to store and retrieve/review all comps, so that when they start to look for replacement housing, the data will already be in the system for that specific project.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right-of-Way product will provide the Agency with the ability to enter, store, and retrieve comps. All forms are highly configurable by the Agency, and it can use the Form Builder in Masterworks to create and modify its forms.
-154	Relocation	Provide the ability to integrate with and/or replicate the Mortgage Interest Differential Payments (MIPD) Calculators for relocation purposes. (https://www.fhwa.dot.gov/real_estate/uniform_act/relocation/midpcalcs/)	Customization	Small		Right of Way and Land Management	N/A	More information is needed to understand this requirement fully. The Right-of-Way forms can be customized to include fields that pull down and display information from the Mortgage Interest Differential Payments (MIPD) Calculators for relocation.
-155	Relocation	Provide the ability to auto generate claims based on information entered through a user-defined workflow checklist.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will give the Agency the ability to enter claims information in dynamic forms. Workflows can be configured to manage data entry using a checklist, with the final step being the creation of claims.
-156	Relocation	Provide the ability to auto generate the Last Resort Housing Memo, auto populated from the right-of-way solution once the amount exceeds the threshold.	Customization	Medium		Right of Way and Land Management	N/A	More information is needed to understand this requirement fully.
-157	Relocation	Provide the ability to upload pictures for the subject property and associated comps and store in ProjectWise and link for later retrieval.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	The Agency will have the ability to upload property pictures and associate them to comps forms. Integration with ProjectWise will allow transferring photos between the systems.
-158	Relocation	Provide the ability to support both business and residential relocation for property owners and tenants.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	The Agency will have the ability to support both business and residential relocations for property owners and tenants. All forms are highly configurable by the Agency.
-159	Relocation	Provide the ability to calculate eligible relocation costs for displacees under various relocation alternatives and to support the review of these calculations.	Off the Shelf with Configuration	Medium		Right-of-Way and Land Management	N/A	Aurigo will configure the relocation calculation based on the Agency's requirements
-160	Relocation	Provide the ability to prepopulate and create online relocation worksheets and questionnaires within the right-of-way solution. Worksheets and questionnaires shall be prepopulated with information about displacees obtained during the acquisition process.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Masterworks' Right of Way product comes with standard relocation worksheets. Additional configurations will be made to the relocation processes to match the Agency's requirements.
-161	Relocation	Provide the ability to create and maintain a list of displacees associated with each parcel being acquired. The list of displacees provides information about each individual who is eligible for assistance through the relocation process.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display a list of displacees at the parcel level. All forms are highly configurable by the Agency.
-162	Relocation	Provide ability to enter, store, and display demographics on displacees (minority, non-minority, and sex) for use in statistical reporting.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display demographics details and any other ancillary information. All forms are highly configurable by the agency.
-163	Relocation	Provide the ability to automatically prepare a replacement housing appraisal. This will be triggered by completion of an appraisal.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Masterworks' Right of Way product comes with appraisal forms. Aurigo must make additional configurations to the appraisal forms to meet the Agency's requirements. Additional forms, workflows, and reports must be configured to manage replacement housing appraisal processes.
-164	Relocation	Provide the ability to enter, store, and display all (initial and subsequent) meetings with a displacee and document the information and explanations provided in each meeting.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display all meeting information for documentation. All forms are highly configurable by the agency.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-165	Relocation	Provide the ability to enter, store, and display the Residential Relocation Questionnaire, which captures information on all current occupants, the cost of current housing and preferences for relocation location.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display the Residential Relocation Questionnaires for all current occupants and any other ancillary information. All forms are highly configurable by the Agency.
-166	Relocation	Provide the ability to enter, store, and display the Non-Residential Relocation Questionnaire, which includes the name of the business; the owner of the business; demographic information on the owner; the nature/type of business; current lease terms; plans for relocating or discontinuing operations; desired relocation location and other business specific attributes.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display Non-Residential Relocation Questionnaires for all current business owners and any other ancillary information. All forms are highly configurable by the agency.
-167	Relocation	Provide the ability to generate a statement of rent and income for execution by residential displacee pre-populating where information is available in the system (owner name, spouse name, address, etc.).	Off the Shelf with Configuration	Medium		Aurigo Masterworks Cloud Platform	N/A	A statement of rent and income report can be configured. The report will include displaced information if available in Masterworks.
-168	Relocation	Provide the ability to enter, store, and display information on statement of rent and income including occupant name; spouse name; address; length of time at the address; date moved in; monthly rent; utility costs; how rent was verified (cancelled checks, rent receipts, verification with landlord, etc.); and monthly income and how income was verified (pay stub, tax return, etc.).	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display statement of rent and income for occupant details and any other ancillary information. All forms are highly configurable by the Agency.
-169	Relocation	Provide the ability to calculate eligible relocation payments for residential displacees and store within the right-of-way solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to calculate relocation payments for residential displacees and store the information in Masterworks.
-170	Relocation	Provide the ability to calculate eligible relocation payments for business displacees and store within the right-of-way solution.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way product will provide the Agency with the ability to calculate relocation payments for business displacees and store the information in Masterworks.
-171	Relocation	Provide the ability to enter, store, and display various types of relocation payments being offered (since some relocation payment types are taxable and others are not, this is needed to support 1099 generation).	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks' Right of Way product will provide the Agency with the ability to enter, store, and display relocation payments being offered. This will allow for the generation of reports showing items that could be associated with a 1099. All forms are highly configurable by the Agency.
-172	Relocation	Provide the ability to integrate with multiple Excel-based relocation calculators and then link to ProjectWise to save/store the calculation worksheets for later retrieval.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will allow the Agency to integrate with ProjectWise to store calculation worksheets in Excel format. All forms are highly configurable by the Agency.
-173	Relocation	Provide the ability to enter, store, and display available replacement housing including location, date available, asking price or rent price, a detailed description of the property, various attributes about the property and whether the property has been inspected, and by whom.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to enter, store, and display available replacement housing information that includes all associated data fields like inspection details. All forms are highly configurable by the Agency.
-174	Relocation	Provide the ability to link to the Multiple Listing Service (MLS) for the appropriate area.	Customization	Medium		Right-of-Way and Land Management	N/A	Masterworks can be integrated with the MLS if the external system can use APIs for communication. The Agency must also have the contractual right to connect with the MLS and extract data from it. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the MLS.
-175	Relocation	Provide the ability to link to Digital Courthouse for tax information.	Customization	Medium		Right-of-Way and Land Management	N/A	Masterworks can be integrated with the Digital Courthouse to gather tax information if the external system can use APIs for communication. The Agency must also have the contractual right to connect with the Digital Courthouse and extract data from it. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the Digital Courthouse.
-176	Relocation	Provide the ability to define an automated workflow to review/approve relocation payments with review steps based on user-defined business rules.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks' Right of Way will provide the Agency with the ability to define and configure a form associated with a workflow for managing the review/approval of relocation payment. All forms are highly configurable by the Agency.
-177	Relocation	Integrate with the wvOASIS ERP accounts payable function to initiate payment request for relocation. This should include pre-encumbrance for relocation amount against project and project phase.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Aurigo has extensive experience with integrating Masterworks with ERP systems. Masterworks can be integrated with the wvOASIS ERP accounts payable function to initiate payment requests for relocation. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

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#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
178	Relocation	Integrate with the wvOASIS accounts payable function to obtain and record warrant numbers and date payments were made by the State.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to obtain and record warrant numbers, and the date payments were made by the State. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
179	Relocation	Provide ability to automatically/electronically generate a relocation claim form for execution by a residential displacee.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to generate a relocation claim form electronically. All forms are highly configurable by the Agency.
180	Relocation	Provide ability to automatically/electronically generate a relocation claim form for execution by a business displacee.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to generate a relocation claim form electronically. All forms are highly configurable by the Agency.
181	Relocation	Provide ability to enter, store, and display the final contact with displacee following relocation including new address and contact information and information about the replacement dwelling.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to enter, store, and display the final contract with displacee information. All forms are highly configurable by the Agency.
182	Relocation	Provide ability to compute whether displacees are eligible to make claims based on occupancy or displacement dates.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to report whether displacees are eligible to make claims based on displacement dates. All forms are highly configurable by the Agency.
183	Relocation	Provide ability to generate alerts within the system and a letter to displacees a user-defined number of days/months (12 months, 18 months, etc.) before displacee's eligibility to enter a relocation expense claim is set to expire.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks' Right of Way will provide the Agency with the ability to run exportation dates before displacee's eligibility is about to expire. All forms are highly configurable by the Agency to report such requirements.
184	Legal Condemnation	Provide the ability to generate a request to institute condemnation proceedings based on initiation by an authorized user. This letter will document last offer to the property owner; amount asked for by property owner if the property owner has disclosed a price; number of negotiations attempt with the property owner or their authorized representative; and reasons for recommending condemnation.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to enter, store, and display and generate the request and reason for condemnation. All forms are highly configurable by the Agency.
185	Legal Condemnation	Provide the ability to document in a condemnation request the last offer to the property owner; amount asked by property owner if the property owner has disclosed a price; number of negotiations attempt with the property owner or their authorized representative; and reasons for recommending condemnation.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to enter, store, and display the documentation of the last offer for condemnation requests and recommendations. All forms are highly configurable by the Agency.
186	Legal Condemnation	Provide the ability to electronically route a condemnation request to authorized reviewers and approvers based on user-defined business rules.	Off the Shelf with Configuration			Right of Way and Workflow Engine	N/A	Masterworks' Right of Way will provide the Agency with the ability to capture and route condemnation requests per the Agency's business rules. All forms are highly configurable by the Agency.
187	Legal Condemnation	Provide the ability to initiate condemnation proceedings based on approval of the condemnation request by authorized reviewers in the system.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks' Right of Way will provide the Agency with the ability to initiate the proceedings of condemnation requests per the formal approval process. All forms are highly configurable by the Agency.
188	Legal Condemnation	Provide the ability to generate a 5-day Notice Of Condemnation letter to the owner.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks' Right of Way will provide the Agency with the ability to generate 5-Day notice condemnation letters for owners. All forms are highly configurable by the Agency.
189	Legal Condemnation	Integrate with wvOASIS accounts payable to generate request for warrant to compensate process server, including appropriate preencumbrance against the project and project phase.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to generate requests for warrants to compensate the process servers. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
190	Legal Condemnation	Provide the ability to store all dates relevant to a condemnation, including but not limited to the following: - When request to institute condemnation was received from the District; - Date condemnation packet was submitted to Legal Division; - Date of Take (i.e., the Date the Petition is filed); - Right of Entry Date (ROE); - Scheduled trial date[s]; and - Date of settlement/final order.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks's Right of Way will provide the Agency with the ability to enter, store, and display all condemnation data. All forms are highly configurable by the Agency.
191	Legal Condemnation	Provide the ability to document the outcome of court proceedings and the amount of court award.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks's Right of Way will provide the Agency with the ability to document the outcomes of court proceedings, including amounts awarded. All forms are highly configurable by the Agency.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

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#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-192	Legal Condemnation	Integrate with wvOASIS accounts payable to generate a request for warrant payable to Court Clerk for amount of court award, including appropriate pre-encumbrance against the project and project phase.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to generate requests for warrants payable to the Court Clerk for the amounts of court awards. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
-193	Legal Condemnation	Provide the ability to generate a 1099 only when appropriate. Right-of-way solution should provide proper 1099-flag to wvOASIS accounts payable. For example, it should ensure that a 1099 is NOT generated for the amount of a condemnation award (since the condemnation award is payable to the Court, which is responsible for any 1099 reporting to property owners upon making payment).	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to set flags when 1099 documents must be issued. Aurigo will configure a process that determines if 1099 flags must be set based on the business rules defined by the Agency. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
-194	Legal Condemnation	Provide the ability to document a legal settlement prior to condemnation and capture settlement amount and other settlement information in system.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the 2019 Washington Street, East with the ability to document any and all legal settlements within the system. All forms are highly configurable by the Agency.
-195	Legal Condemnation	Integrate with the wvOASIS accounts payable function to initiate payment request for settlement amount. This should include preencumbrance for acquisition amount against project and project phase.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to initiate payment requests for settlement amounts. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
-196	Legal Condemnation	Provide the ability to track the condemnation rate by different parameters (e.g., fiscal year, urban/rural areas, state project, federal project, etc.).	Off the Shelf with Configuration	Medium		Right of Way and Reporting Tool	N/A	Masterworks' Right of Way will provide the Agency with the ability to enter, store, track, and report on different condemnation parameters. Tracking can be filtered off any data field captured in the form. All forms are highly configurable by the Agency.
-197	Legal Condemnation	Provide the ability to generate a notification to the Appraisal Section once the Petition has been filed and ROE has been granted so the Appraisal Report can be updated to the Date of Take for court.	Off the Shelf with Configuration			Right of Way and Land Management	N/A	Masterworks' Right of Way will provide the Agency with the ability to notify the Appraisal Section via conditional steps of a workflow. Workflows can initiate another workflow off of a condition being met or promoted. All forms are highly configurable by the Agency.
-198	Acquisition & Relocation Payments	Integrate with the wvOASIS accounts payable function to support payment processing requirements of the right-of-way, utilities, and railroad agreement processes.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to support payment processing requirements for right-of-way, utilities, and railroad agreements. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
-199	Acquisition & Relocation Payments	Provide the ability to support payment of property acquisition and relocation payments to property owners and displacees (who may or may not already be in the State's vendor master). Integrate with wvOASIS and set-up the property owner or displacee in wvOASIS in order to pay property owners and displacees.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS to issue requests to set up property owners and displacees in the wvOASIS vendor master. Masterworks can also be integrated with the wvOASIS ERP accounts payable function to support payments for property acquisitions and relocation payments to property owners and displacees. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
-200	Acquisition & Relocation Payments	Integrate with the wvOASIS accounts payable function to initiate payment request for accepted offers. This should include preencumbrance for acquisition amount against project and project phase.	Customization	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with the wvOASIS ERP accounts payable function to initiate payment requests for accepted offers. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.
-201	Acquisition & Relocation Payments	Provide the ability to generate multiple warrant requests (e.g., if the property has multiple property owners who want individual checks, or payments to trusts, or payments to one or more banks for mortgage balances, and so on).	Off the Shelf with Configuration			Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	A process can be configured to give the Agency the ability to generate multiple warrant requests. Masterworks can be integrated with the wvOASIS ERP accounts payable function to initiate multiple payment requests for property owners. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the touchpoints for connecting with the wvOASIS ERP function.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B Sub-Category	C Business (Functional) Requirement	D Vendor Response	E Customization Estimate, if Applicable	F Capability Planned for Future Release	G Core Module(s)	H Third Party Solution(s)	I Comments/Notes
-202	Acquisition & Relocation Payments	Provide the ability to support multiple payees (i.e., warrants made out to multiple individuals) determined by percentage share due to each individual (ensuring that the State does not pay more than 100% of the agreed-upon acquisition amount).	Off the Shelf with Configuration	Small		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Aurigo Masterworks Cloud can support multiple payees.
-203	Acquisition & Relocation Payments	Provide the ability to display the fund balances on a project/project phase when a payment request is generated in the right-of-way solution.	Off the Shelf with Configuration	Small		Right-of-Way and Land Management, Full Lifecycle Construction Management	N/A	Aurigo Masterworks Cloud has comprehensive fund management functionality that can be configured to work in conjunction with the Right of way solution.
-204	Acquisition & Relocation Payments	Generate alerts to a project specific distribution list when the available funds on a project or project phase fall below a user-configurable threshold value.	Off the Shelf with Configuration	Small		Aurigo Masterworks Cloud Platform	N/A	Custom alerts and notifications can be configured in workflows based on the Agency's business process requirements.
-205	Acquisition & Relocation Payments	Generate an alert to a project specific distribution list when the project end date or project financial end date is within a certain user-defined time period.	Off the Shelf with Configuration	Small		Aurigo Masterworks Cloud Platform	N/A	Custom alerts and notifications can be configured in workflows based on the Agency's business process requirements.
-206	Acquisition & Relocation Payments	Provide the ability to support review and approval of acquisition and relocation payment requests by authorized users based on project number and payment amount through a workflow-driven approval process.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Workflows can be configured to enable authorized users to review and approve payment requests.
-207	Acquisition & Relocation Payments	Provide the ability to support review and approval of payments by WVDOT Business Manager for payments over a user-defined threshold.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Workflows can be configured to enable authorized users to review and approve payments when a Agency-defined threshold is crossed.
-208	Acquisition & Relocation Payments	Provide the ability to support scheduling of closings following receipt of all required payment approvals.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Workflows and Checklists can be configured in Masterworks to support the scheduling of closings once all the required payment approvals are received.
-209	Acquisition & Relocation Payments	Provide the ability to initiate payment request based on obtaining all required approvals.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Payment initiation workflows can be triggered automatically once all the approvals are received.
-210	Acquisition & Relocation Payments	Provide the ability to record expenditures against project, project phase, and funding source and adjust encumbrance as appropriate via integration with HUB and/or wvOASIS	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Masterworks will be integrated with WVDOT HUB and wvOASIS to record expenditures against projects, project phases, and funding sources.
-211	Acquisition & Relocation Payments	Provide ability to generate payment for property acquisition by warrant via integration with wvOASIS accounts payable.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Masterworks will be integrated with wvOASIS accounts payable to generate payments for property acquisitions.
-212	Acquisition & Relocation Payments	Provide ability to generate payment for relocation by warrant or EFT with approval of an authorized user.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Masterworks will be configured to ensure that authorized users approve the generation of relocation payments.
-213	Acquisition & Relocation Payments	Provide the ability to integrate with wvOASIS to support creation of a 1099 tax form for taxable acquisition and relocation payments by wvOASIS.	Off the Shelf with Configuration			Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks will be integrated with wvOASIS to generate 1099 forms.
-214	Acquisition & Relocation Payments	Provide the ability to flag payments via integration with wvOASIS accounts payable for the withholding of State of West Virginia income taxes for out-of-state property owners. That is, for out-of-state property owners, WV State income tax due should be automatically deducted and remitted to the West Virginia State Tax Department, which would be handled in wvOASIS and intergovernmental transactions transmitting individual taxpayer information to the State Tax Department electronically.	Off the Shelf with Configuration			Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks will be integrated with wvOASIS accounts payable to flag payments for withholding.
-215	Acquisition & Relocation Payments	Provide the ability to allow authorized users to track status of acquisition and relocation payment requests (excluding personally identifying information).	Off the Shelf with Configuration	Medium		Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Reports can be configured to track the status of acquisition and relocation payment requests. User roles and permissions can be set up to allow only authorized users to run the reports.
-216	Acquisition & Relocation Payments	Provide the ability to cancel checks as required via integration with wvOASIS accounts payable. As an example, once the negotiations are complete, the parcel owner may withdraw their acceptance of an offer and the check may need to be pulled and canceled.	Off the Shelf with Configuration			Right-of-Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks will be integrated with wvOASIS accounts payable to request the cancellation of checks.
-217	Admin Payment Processing	Provide the ability for user to enter and store right-of-way relevant data in the right-of-way solution, once the Vendor Customer ID has been created in wvOASIS. This implies a lookup and confirmation from the wvOASIS vendor master and the right-of-way solution via validation of the Vendor Customer ID within the right-of-way solution.	Customization	Medium		Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	More information is needed to understand this requirement fully. A custom system integration must be created to meet the Agency's requirements.
-218	Admin Payment Processing	Provide the ability to track and maintain all payments related to reimbursable Acquisition & Relocation for Design-Build projects.	Off the Shelf with Configuration			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	All payments related to Acquisition & Relocation for Design-Build projects can be tracked in Masterworks. Payments on all Contracts can be managed using Pay Estimates, Purchase Orders, and miscellaneous expenses.
-219	Contract Management	Integrate with wvOASIS procurement function to support auto-generation of contract numbers for all Individual Services Contracts (Appraisal, Acquisition, Relocation, etc.).	Customization	Small		Right of Way and Land Management, Contract Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with wvOASIS. The customization effort will be dependent on the Agency's business requirements and wvOASIS' integration capabilities.
-220	Contract Management	Integrate with the wvOASIS procurement function to access and maintain a list of contract appraisers, attorneys, right-of-way services firms, and firms performing disinterment and reinterment services.	Customization	Small		Right of Way and Land Management, Contract Management	N/A	This functionality is supported by the Masterworks API but will require a small customization effort to write the code to integrate with wvOASIS. The customization effort will be dependent on the Agency's business requirements and wvOASIS' integration capabilities.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B	C	D	E	F	G	H	I
	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-221	Contract Management	Provide the ability to maintain a list of approved service providers such as approved appraisers, attorneys, right-of-way consultants	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard Vendor Management functionality in Masterworks. The Agency can maintain lists of approved service providers in the Masterworks Library.
-222	Contract Management	Provide the ability to search a list of real estate specific capabilities and specifications which a consultant is authorized to perform.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard Vendor Management functionality in Masterworks.
-223	Contract Management	Provide the ability to maintain a list of key staff members at each appraisal or right-of-way services firm, integrating with the wvOASIS procurement function as appropriate. This should include vendor identification number, company name, employee name, phone number, fax number, email address, physical address, functional role if applicable (e.g., project manager, appraiser, right-of-way agent, etc.), and any licenses and certifications which the individual holds.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard Vendor Management functionality in Masterworks.
-224	Contract Management	Integrate with the wvOASIS procurement/contracts management function to support the consultant selection process for appraisal and other right-of-way acquisition services.	Off the Shelf with Configuration			Aurigo Masterworks Cloud Platform, Right of Way and Land Management	N/A	Masterworks' Vendor Management product supports vendor evaluations and scoring. Some configuration will be required if the Agency chooses to integrate with wvOASIS to perform portions of the consultant selection process.
-225	Contract Management	Provide the ability to define a proposed consultant scope of work including a description and the items of work to be performed.	Off the Shelf			Aurigo Masterworks Cloud Platform, Consultant Service Contracting	N/A	This is standard Vendor Management and Consultant Service Contracting functionality in Masterworks.
-226	Contract Management	Provide the ability to record an WVDOT estimate of cost of performing services and create pre-encumbrance for this amount against appropriate project, project phase, and funding source.	Off the Shelf			Right of Way and Land Management, Full Construction Project Management	N/A	This is standard Funding and Budget Management functionality in Masterworks.
-227	Contract Management	Provide the ability to record and store consultant responses to WVDOT issued scopes of work. Response documents should be stored in ProjectWise and linked for later retrieval.	Off the Shelf with Configuration			Aurigo Masterworks Cloud Platform, Consultant Service Contracting	N/A	This is standard Vendor Management and Consultant Service Contracting functionality in Masterworks. Consultant responses can be stored in Masterworks using Masterworks' Document Management functionality. Documents can also be exchanged with ProjectWise using the Masterworks API.
-228	Contract Management	Provide the ability to document WVDOT selection of consultant including selection team scoring and comments.	Off the Shelf			Aurigo Masterworks Cloud Platform, Consultant Service Contracting	N/A	This is standard Vendor Management and Consultant Service Contracting functionality in Masterworks. Masterworks will store selection team scores and comments for all consultant selection processes.
-229	Contract Management	Integrate with wvOASIS purchasing function to create purchase orders for selected consultant and encumber funds against the appropriate project, project phase, and funding sources.	Customization	Small		Right of Way and Land Management, Full Construction Project Management	N/A	This is standard Funding and Budget Management functionality in Masterworks that the Masterworks API supports. It will require a small customization effort to write the code to integrate with wvOASIS. The customization effort will be dependent on the Agency's business requirements and wvOASIS' integration capabilities.
-230	Contract Management	Integrate with the wvOASIS procurement/contracts management function to support the creation, maintenance and tracking of contracts for any contracted services such as appraisals, etc.	Customization	Small		Right of Way and Land Management, Consultant Service Contracting	N/A	This is standard Contract Management functionality in Masterworks that the Masterworks API supports. It will require a small customization effort to write the code to integrate with wvOASIS. The customization effort will be dependent on the Agency's business requirements and wvOASIS' integration capabilities.
-231	Contract Management	Provide the ability to track contract number, contract amount, contract effective date, contract expiration date, vendor contacts for the contract, and other contract attributes.	Off the Shelf			Right of Way and Land Management	N/A	This is standard Contract Management functionality in Masterworks.
-232	Contract Management	Provide the ability to support creation and modification of consultant contract templates in system as required.	Off the Shelf			Aurigo Masterworks Cloud Platform, Consultant Service Contracting	N/A	Masterworks provides this capability. The Agency can use Word to create consultant contract templates and store them in the Masterworks Library. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what specific consultant contract templates must be configured.
-233	Contract Management	Provide the ability to generate consultants contracts in the system using contract templates as required, based on a set of parameters.	Off the Shelf			Aurigo Masterworks Cloud Platform, Consultant Service Contracting	N/A	Masterworks' Mail Merge functionality can create finished consultant contracts using data provided by the user or selected data from the database. During the configuration phase of the implementation project, the Aurigo Team will assist the Agency in setting up its specific consultant contract templates.
-234	Contract Management	Provide the ability to support creation, review, approval and execution of contract change orders.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard Contract Management functionality in Masterworks.
-235	Contract Management	Provide the ability to record consultant performance ratings on a specific scope of work.	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	This is standard Vendor Management functionality in Masterworks.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-236	Contractor Payments	Provide the ability to record and review a consultant or contractor invoice and then integrate with the wvOASIS accounts payable function to initiate the accounts payable voucher and initiate processing of the consultant payment within wvOASIS. Store the invoice submission in ProjectWise and link to ProjectWise for future retrieval. This requirement should apply to contractor payments for individuals and firms performing contracted services in support of the right-of-way acquisition process and for utilities or railroads performing work under utility relocation agreements.	Customization	Small		Aurigo Masterworks Cloud Platform, Right of Way and Land Management, Consultant Service Contracting	N/A	This is standard functionality in Masterworks that the Masterworks API supports. All associated data and documents will be stored in Masterworks. The data and documents can also be exchanged with wvOASIS and ProjectWise. It will require small customization efforts to write the code to integrate with wvOASIS and ProjectWise. The customization effort will be dependent on the Agency's business requirements and the integration capabilities of wvOASIS and ProjectWise.
-237	Contractor Payments	Provide the ability for a consultant, utility, etc. to enter and upload an invoice via an Internet-based portal.	Customization	Medium		Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Aurigo can develop and configure a public-facing internet-based portal based on the Agency's business requirements. The portal can be implemented in several ways. For example, it can be an open link that any consultant, utility, or citizen can access without requiring confirmation of who they are. Or it can require some basic information before it can be used (e.g., name, email, etc.). Or it can be accessible by known end-users who have a Masterworks user account. Those who connect via the portal will generally be restricted in what they can access, query, upload, and download. For example, entities recognized as a consultant or utility can be immediately taken to a form they must fill out before being allowed to upload an invoice. There is currently not enough requirement information to provide a detailed approach and solution. If short-listed, Aurigo would like the opportunity to have further discussions to define the scope and associated costs.
-238	Contractor Payments	Provide the ability to support electronic review and approval of a consultant, contractor, utility company or railroad invoice by authorized users based on project number through a workflow-driven approval process.	Off the Shelf			Aurigo Masterworks Cloud Platform, Right of Way and Land Management, Consultant Service Contracting	N/A	This is standard functionality in Masterworks.
-239	Contractor Payments	Provide the ability to display the fund balances on a project/project phase when a payment request is generated in the system.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	This is standard functionality in Masterworks.
-240	Contractor Payments	Provide the ability to generate alerts when the available funds on a project or project phase fall below a user-definable threshold value.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	This is standard functionality in Masterworks.
-241	Contractor Payments	Provide the ability to initiate payment request based on approvals of invoice by authorized users.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	This is standard functionality in Masterworks.
-242	Contractor Payments	Provide the ability to record expenditure against project, project phase and funding source and adjust encumbrance as appropriate.	Off the Shelf			Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	This is standard functionality in Masterworks.
-243	Contractor Payments	Integrate with wvOASIS to obtain invoice payment status and provide the ability to allow authorized WVDOT staff to track the status of an invoice payment, excluding review of any personally identifying information (PII).	Customization	Medium		Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with wvOASIS accounts payable. This will require a custom-built integration. Invoice payment information can be pulled down from wvOASIS, and the status of payments can be displayed in Masterworks.
-244	Property Management	Provide the ability to integrate with HUB & Advantage Financial for all information as it pertains to payable & receivable leases to support invoicing for lease amounts due and obtaining information back on receipt of payments.	Customization	Small		Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with WVDOT HUB and Advantage Financial. Information can be exchanged regarding payable and receivable leases to support invoicing for lease amounts due and obtaining information back on receipt of payment.
-245	Property Management	Provide the ability to maintain all right-of-way assets (Land, Buildings, Leases) and integrate with wvOASIS Asset Inventory so all right-of-way assets are being entered/stored into the right-of-way solution and then interface with wvOASIS so data is not being entered into two separate databases. The right-of-way system should maintain our asset inventory and should integrate with wvOASIS to meet the requirements. Inventory shall include parcel location including full geospatial location, property description, information on any structures and other attributes. Inventory record will be linked back to acquisition information/history.	Customization	Large		Right of Way and Land Management, Aurigo Masterworks Cloud Platform	N/A	Masterworks can be integrated with wvOASIS Asset Inventory. All right-of-way assets will be entered/stored into the Masterworks Right-of-Way solution, and then the interface will be used to upload the data into wvOASIS, so the data is not being reentered in another system.
-246	Property Management	Provide the ability to request and track the progress on all Property Management appraisal report requests.	Off the Shelf with Configuration	Medium		Right of Way and Land Management	N/A	Reports can be configured to track the progress of property management appraisal report requests.
-247	Property Management	Provide the ability to track lease term dates. For example, the system should generate a notification 90 days before the termination of the lease so the Property Management section can take the appropriate steps on renewing or canceling the lease.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Notifications can be configured to alert authorized users who have to track lease term dates.

WVDOT Right-of-Way, Utilities and Railroad Management System Right-of-Way (ROW) Requirements

#	B Sub-Category	C Business (Functional) Requirement	D Vendor Response	E Customization Estimate, if Applicable	F Capability Planned for Future Release	G Core Module(s)	H Third Party Solution(s)	I Comments/Notes
-248	Property Management	Provide the ability to track and manage when property is sold. This includes removing it from the overall asset inventory and integrating with the various systems so that it is removed from all systems. This includes integration with wvOASIS fixed assets, WVDOT transportation asset inventory and BRIM.	Customization	Small		Right-of-Way and Land Management	N/A	Jobs can be configured to manage the disposition of property when it is sold. A job can be scheduled to remove the asset from all the other systems when the workflow reaches a certain stage
-249	Property Management	Provide the ability to capture the intended future use of all assets for inclusion into wvOASIS (for example if DOT acquires a piece of vacant land that will be utilized for a maintenance facility, etc.)	Off the Shelf with Configuration	Small		Right-of-Way and Land Management	N/A	This functionality can be configured to meet the Agency's requirement.
-250	Reporting	Provide the ability to create the Title VI Civil Rights Review Quarterly report including the project number, parcel number and name of owners, whether it was an acquisition or relocation, and whether the impacted parties are a minority and/or a female head of household.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	All necessary data will be collected by Masterworks, the configuration of the custom report would be needed through the report editor.
-251	Reporting	Provide a dashboard for WVDOT management summarizing the status of right-of-way acquisition activities for each project in a red, yellow, and green format based on user-definable variables for budget and schedule. Provide the capability to drill down within each project to see the status of each parcel in the same format and then allow the user to drill down further into the specific detailed information for any parcel. This dashboard should be able to be filtered by district.	Off the Shelf			Right-of-Way and Land Management	N/A	Fully supported with Masterworks Dashboards
-252	Reporting	Provide a dashboard for WVDOT management which summarizes the status of utility relocation and railroad agreement activities for each project in a red, yellow, and green format based on user-defined variables for budget and schedule. Provide the capability to drill down within each project to see the status of each parcel in the same format and then allow the user to drill down further into the specific detailed information for any parcel. This dashboard should be able to be filtered by district.	Off the Shelf			Right-of-Way and Land Management	N/A	Fully supported with Masterworks Dashboards

WVDOT Right-of-Way, Utilities and Railroad Management System
Utility Relocation and Railroad Agreement Requirements

#	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
01	General	Provide the ability to support management and tracking of utility relocation activities required for transportation projects according to the WVDOT utility relocation manual.	Customization	Medium		Right of Way and Land Management	N/A	No Out of the box capability for the same, this can be configured as per customer requirements.
02	General	Provide the ability to support management and tracking of railroad agreements required for transportation projects.	Off the Shelf			Right of Way and Land Management, Contract Management	N/A	This is standard Contract Management functionality in Masterworks.
03	General	Provide the ability to enter, store, and display a ROW Utility Dashboard to define and maintain the relocation of utilities tied to state, district, and federal construction projects.	Customization	Medium		Right of Way and Land Management	N/A	The Agency can enter, maintain, and store utility relocation information in Masterworks tied to state, district, and federal construction projects. The data can be displayed on a ROW Utility Dashboard created by the Agency. Almost all data stored in Masterworks can be displayed in a dashboard.
04	General	Integrate with the WVDOT HUB application to obtain project identification and attribute information.	Customization	Small		Full Lifecycle Construction Management, Right of Way and Land Management	N/A	The Masterworks APIs can be used to create a two-way integration with the WVDOT HUB application for obtaining project and attribute information.
05	General	Provide the ability to enter, store, and display minimally the following information to manage utility relocations: <ul style="list-style-type: none"> - Project Number and description as obtained from HUB; - Utility company and utility company contact information; - Responsibility; - Overall Project Cost Estimate; - Utility Coordinator Name; - Project Manager Name; - Consultant Name; - Contractor Name; - Project Key; - Utility Cost Estimate (Date and Amount); - State share of cost (Supplemental and Total); - Utility share of cost; - Types of reimbursable cost (Design, construction, inspection and legal); - County and District; - Location (county/route milepost and Longitude and Latitude); - Amount of right-of-way frontage and private frontage; - Entity performing design work and relocation work; - User-defined Status Codes; - Overall ACTIVE/INACTIVE Flag; - User-defined programs (i.e., ability to tie utility relocation to programs such as the "WV Roads to Prosperity Program"); - Project milestone schedule (see additional requirements following); - Project Activity Dates (see additional requirements following); - Comments (general and DDR Comments separately); - Involved utility companies (see additional requirements following); and - Other user-defined attributes. 	Off the Shelf with Configuration			Right of Way and Land Management	N/A	One or more forms, workflows, and reports can be configured in Masterworks for entering and maintaining utility relocation information. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to understand what utility relocation information must be captured and stored. Required system integrations and data migrations will also be determined. The new forms, workflows, and reports will be configured to meet the Agency's business requirements.
06	General	Provide the ability to identify and link one or more utility companies to the project and the ability to define and track relevant information regarding each, including but not limited to: <ul style="list-style-type: none"> Type of Utility (e.g., Gas, Electric, Railroad, etc.); - VER Request Date; - VER Received Date; - Whether Utility is Present or Not and Whether it is impacted; - Who will do the work; - Relocation Request Date; - Relocation Received Date; - Relocation Approved Date; - Agreement Required (Y/N); - Type of Agreement (Normal, no reimbursement, supplemental, betterment, etc.); - NTP Date; - STEP; - Agreement Sent Date; - Agreement Received Date; - Relocation Started Date; - Utility Cleared Date' and - Free-form Comments/Notes field for Utility. 	Off the Shelf with Configuration			Right of Way and Land Management	N/A	One or more forms, workflows, and reports can be configured in Masterworks for entering and maintaining utility company information. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to understand what utility company information must be captured and stored. The information can be stored in the Masterworks Library and then used for lookup and data validation. A utility company field can be added to any project form. Business rules can be configured in Masterworks to look up data in the utility company table and ensure the proper information is entered for the project.
07	General	System shall also allow for linking to the agreement record for a utility relocation or a railroad agreement various related documents stored in ProjectWise including request letter, WVDOT RW8.01 forms, invoices to verify contract work, relocation plan, working days schedule, copies of deeds/easements or affidavit.	Off the Shelf with Configuration			Right of Way and Land Management, Contract Management	N/A	The Masterworks APIs can be used to create a two-way integration with the Agency's ProjectWise application for obtaining project and attribute information. The Aurigo Team will work with the Agency's SMEs to fully define the touchpoints between the two systems. The Aurigo Team will help the Agency determine if the data should be exchanged in real-time or batch mode.

WVDOT Right-of-Way, Utilities and Railroad Management System
Utility Relocation and Railroad Agreement Requirements

Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
8 Forms Management	Provide the ability to create and auto-populate PE Letters, RR & Utility Agreements, and Notice to Proceed Letters. Provide capability to update all memos/letters that use the letterhead.	Off the Shelf with Configuration			Right of Way and Land Management, Document Management	N/A	Document templates such as PE Letters, RoW and Utility Agreements, and Notice to Proceed Letters can be created using MS Word. The templates can include graphical items such as the Agency's logo or a stylized letterhead. Masterworks has mail merge capabilities that can populate a document template using data from one or more records chosen by the user. The completed documents can be printed or output to electronic files for emailing. Authorized users will have the ability to create new templates and modify existing templates using Word and then store the templates in the Masterworks Library.
9 Forms Management	Ability to create and auto-populate forms with ability to manually override and update forms/letter as needed.	Off the Shelf			Right of Way and Land Management, Full Lifecycle Construction Management	N/A	Masterworks' products all run on a single platform and access a single customer database. All the data in the database is sharable and accessible by all products. Fields on Masterworks forms can be auto-populated based on the Agency's business rules. For example, the "start date" can be auto-populated with today's date, and the "project owner" can be auto-populated with the user ID of the person creating a new project in Masterworks. Any auto-populated field can be overridden if the user has the authorization to do so, or the field's contents can be locked such that it becomes a display-only field. Fields can also be locked from further changes when events happen, such as during contract closeout.
0 Document Management	Provide the ability to attach and maintain associated external documents or attachments. Documents should be stored in ProjectWise and linked to for future retrieval from within the system.	Off the Shelf with Configuration			Right of Way and Land Management, Full Lifecycle Construction Management	N/A	Full-featured Document Management features are included in Aurigo Masterworks Cloud. The Agency's users will be able to upload documents and associate them with specific projects, change orders, contracts, etc. Business rules and role permissions are used to determine who can upload files, check them in/out, move them, or delete them. Workflows can be associated with certain file types and document management activities that initiate document review and approval processes. Business rules can be used to ensure only documents of a certain type can be uploaded and associated with RoW and Land Management projects/contracts. The Document Manager in Masterworks has markup capabilities. A user can bring up an image of a document and then mark it up with freeform text or notes. The markups can then be saved and associated with the original document. To make permanent changes to a document, the user will need to use the application which created the document (e.g., use Word to modify .docx files). The documents will be stored within a directory structure defined by the Agency. Masterworks' document management functionality supports document metadata features used to group documents. Masterworks can be integrated with ProjectWise to allow for exchanging documents between the two systems.
1 Agreements	Provide the ability to document detailed utility or railroad relocation agreement. Allow for creation and maintenance of agreement templates and allow authorized users to change/updates these agreement templates which can then be utilized to create specific utility or railroad relocation agreements.	Off the Shelf with Configuration			Aurigo Masterworks Cloud Platform, Right of Way and Land Management	N/A	Forms, workflows, and reports can be configured to manage detailed utility and railroad relocation agreements. Agreement templates can be created using MS Word. The templates can include graphical items such as the Agency's logo or a stylized letterhead. Masterworks has mail merge capabilities that can populate agreement templates using data from one or more records chosen by the user. The completed agreement documents can be printed or output to electronic files for emailing. Authorized users will have the ability to create new templates and modify existing templates using Word and then store the templates in the Masterworks Library.
2 Workflow	Provide the ability to provide an automated workflow to review/approve relocation agreement with review steps based on user-defined business rules.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Aurigo Masterworks Workflow Engine allows users to configure workflows based on required business rules which can be set at any stage of the workflow.
3 Data Integration	Provide the ability to import changes to project information from HUB.	Customization	Small		Right-of-Way and Land Management	N/A	This will need to be handled as part of a Custom Integration.

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14	Data Integration	Provide the ability to integrate with the wvOASIS accounts payable function to initiate payment request for any utility or railroad relocation cost to be reimbursed by the State. This should include pre-encumbrance for relocation amount against project and project phase. Please also refer to the Acquisition & Relocation Payments subcategory on the Right-of-Way tab.	Customization	Small		Right-of-Way and Land Management	N/A	This will need to be handled as part of a Custom Integration.
15	Data Integration	Integrate with the WVDOT transportation asset inventory function to pre-populate any available information about the utility or railroad assets which must be relocated.	Customization	Small		Right-of-Way and Land Management	N/A	This will need to be handled as part of a Custom Integration.
16	Data Integration	Integrate with the WVDOT transportation asset inventory function to update the transportation asset inventory with the new location of the utilities within the right-of-way or information about the railroad asset.	Customization	Medium		Right-of-Way and Land Management	N/A	This will need to be handled as part of a Custom Integration.
17	Data Integration	Integrate with the WVDOT CAD environment to allow linking to and displaying source data files associated with a utility or railroad relocation within the WVDOT CAD environment.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Aurigo Masterworks allows users to upload, view, and annotate on CAD Drawings.
18	Data Integration	Integrate with the WVDOT CAD environment to support automatic update of utility and railroad relocation data based on any changes to the design plans.	Does Not Meet					Aurigo Masterworks does not have this capability.
19	Data Integration	Integrate with the WVDOT CAD environment when a utility or railroad relocation is initially set-up to import information from the design plan sheets.	Does Not Meet					Aurigo Masterworks does not have this capability.
20	Data Integration	Integrate with the WVDOT CAD environment or ProjectWise to store as built plan files if provided by utility or railroad.	Customization	Small		Right-of-Way and Land Management	N/A	This will need to be handled as part of a Custom Integration.
21	GIS Integration	Provide a geospatial display of utility relocation and railroad agreement information via a GIS viewer within the utility relocation and railroad functionality. Please refer to Requirements ROW-024 through ROW-029 on the Right-of-Way tab which are also intended to apply to utility relocation and railroad agreement information.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Aurigo Masterworks Cloud comes standard with APIs that can be used to integrate with ESRI ArcGIS. Locations marked in the Map can be viewed using Masterworks' built-in map viewer.
22	GIS Integration	Integrate with the WVDOT ArcGIS environment to allow users to select an area of interest in the WVDOT GIS and then drill down to utility relocation and railroad agreement information within the utility relocation and railroad agreements application. Please refer to Requirements ROW-030 through ROW-033 on the Right-of-Way tab which are intended to apply to utility relocation and railroad agreements.	Customization	Medium		Right-of-Way and Land Management	N/A	Aurigo Masterworks Cloud comes standard with APIs that can be used to integrate with ESRI ArcGIS. Locations marked in the Map can be viewed using Masterworks' built-in map viewer. Any drill down from the GIS locations to specific information in the application will need to be customized as per Agency requirements.
23	Notification	Provide the ability for the system to generate a notification to a utility when a parcel/project location is cleared and ready for Utilities to occupy.	Customization	Small		Right-of-Way and Land Management	N/A	Notifications such as these will need to be customized based on the Agency's requirements.
24	Notification	Provide a notification to the project manager and WVDOT staff member responsible for managing the specific relocation when the relocation is within a user-defined number of days of the target completion date and has not yet been completed.	Customization	Small		Right-of-Way and Land Management	N/A	Notifications such as these will need to be customized based on the Agency's requirements.
25	Project Information	Provide the ability to document each utility or railroad asset requiring relocation for a project.	Off the Shelf			Right-of-Way and Land Management	N/A	Standard Masterworks Capability.
26	Project Information	Provide the ability to store name of utility or railroad.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Standard Masterworks Capability.
27	Project Information	Provide the ability to store description of utility or railroad asset to be relocated.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Standard Masterworks Capability.
28	Project Information	Provide the ability to store type of utility or railroad asset to be relocated.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Standard Masterworks Capability.
29	Project Information	Provide the ability to store location of utility or railroad by multiple location references including physical street address, geospatial reference, construction station, etc.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Requirement information for the locations can be configured as per the Agency's requirement.
30	Project Information	Provide the ability to store contact information for utility or railroad representative.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Contact information for utility or railroad representatives can be maintained in the Masterworks Library.
31	Project Information	Provide the ability to document a target date for completion of relocation.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for maintaining information about relocations can be configured as per the Agency's requirements.
32	Project Information	Provide the ability to document date relocation is completed.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for maintaining information about relocation completion dates can be configured as per the Agency's requirements.
33	Project Information	Provide the ability to document each discussion with the utility or railroad concerning the relocation including date, time, location of discussion, individuals from WVDOT and the utility/railroad participating and a summary of the discussion.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for maintaining logs and comments about relocation activities can be configured per Agency's requirements.
34	Project Information	Provide the ability to document estimated cost of relocation for each individual utility or railroad asset.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for documenting estimated relocation costs can be configured per Agency's requirements.
35	Project Information	Provide the ability to document estimated cost of relocation for the entire project either as a summary cost or as a roll-up from the individual cost estimates for each identified relocation activity.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for documenting estimated relocation costs for an entire project can be configured per Agency's requirements.
36	Project Information	Provide the ability to document in narrative format agreed to approach for completing the relocation.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for documenting agreed to approaches in narrative format can be configured per Agency's requirements.
37	Project Information	Provide the ability to document party responsible for completing relocation (State, utility, railroad or other).	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for documenting relocation responsibilities can be configured per Agency's requirements.
38	Project Information	Provide the ability to document the party responsible for cost associated with relocation (State, utility, railroad or other).	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for documenting responsible party information and costs can be configured per Agency's requirements.
39	Project Information	Provide the ability to store a history of cost estimates for each relocation with the date of the estimate and a description of changes since the last cost estimate.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for storing cost estimates for relocations can be configured per Agency's requirements.
40	Project Information	Provide the ability to store the WVDOT staff member responsible for managing relocation activity for the project.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Any relocation-related forms can be modified to add fields that are configured per Agency's requirements.

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1 Monitoring Relocation Activities	Provide the ability to define key dates to track/record to maintain a Project Milestone Schedule. <i>(As an example, the legacy application maintains the following dates: Start CP Date, Start ROW Date, CP Completion Date, RW/U Certification Date, CP/RW Rdy Date, PS E Sub Date, Adv Cntr Date, Let Contract Date, Award Contract Date, Start Construction Date, and Completion Date.)</i>	Off the Shelf			Right of Way and Land Management, Full Construction Project Management	N/A	The Agency can determine what key dates must be tracked in its projects and then create project templates that include the milestones. The Agency can also add or modify the project forms to maintain legacy information. The creation of Milestone Calendars and Schedules is a standard feature in Masterworks.
2 Monitoring Relocation Activities	Provide the ability to define key dates to track/record to maintain a set of Project Activity Dates. <i>(As an example, the legacy application maintains the following dates: RFV Date, RW 1-2's Date, 1-2's Rdy Date, ROW Authorization Date, ROW Certification Date, 3's Ready Date, RFCE Date, PFR Date, UCM Date, RFUS Date, FFR Date, and FOR Date.)</i>	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for storing dates and the actions taken on those dates by location can be configured per Agency's requirements. Also, date fields can be added to any location form.
3 Monitoring Relocation Activities	Provide the ability to allow District staff to record inspection activities in support of utility relocation or railroad agreement and to indicate when work is completed and inspected.	Off the Shelf with Configuration			Right-of-Way and Land Management	N/A	Forms for recording inspection activities can be configured per Agency's requirements.

**WV DOT Right-of-Way, Utilities and Railroad Management System
Management Reporting Requirements**

q. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
T-001	General	Provide a wide range of pre-defined reports that support day-to-day right of way and utilities and railroad relocation management functions. Reports should be able to be scheduled and automatically generated and distributed (pushed to the user) by the operational system at a user defined time for publication.	Off the Shelf with Configuration	Small		Right of Way and Land Management	N/A	Aurigo Masterworks comes with over 300 industry-standard reports out of the box. The configuration to meet this requirement involves the schedule.
T-002	General	Provide capability to copy and modify existing reports as the basis for a new report.	Off the Shelf			Aurigo Masterworks Core Platform	N/A	Users with the appropriate permissions can copy and modify reports.
T-003	General	Provide tools within the Vendor solution to configure new reports.	Off the Shelf			Aurigo Masterworks Core	N/A	Aurigo Masterworks comes with a Report Builder to configure reports.
T-004	General	Provide an ad-hoc query tool within the Vendor solution. The adhoc query toolset within the Vendor solution will not require knowledge and training on its own proprietary language for the majority of users (non power users).	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	Masterworks comes with an ad-hoc report builder that allows authorized users to design reports with no knowledge of SQL or proprietary programming language required.
T-005	General	Provide the ability to integrate with a WV DOT business intelligence environment.	Customization	Medium		Aurigo Masterworks Core	N/A	The Aurigo Masterworks API will be used to develop an integration with the WV DOT BI environment.
T-006	General	Provide the ability to integrate other third-party reporting tools (Crystal Reports, PowerBI, etc.) with the Vendor solution.	Customization	Medium		Aurigo Masterworks Core	N/A	The Aurigo Masterworks API will be used to develop an integration with third-party reporting tools.
T-007	General	Provide an entity relationship diagram(s) to support development of end-user reports through the ad-hoc query tool within the Vendor solution or a third-party reporting application.	Off the Shelf			Aurigo Masterworks Core	N/A	An Entity Relationship Diagram (ERD) will be built and provided as part of the solution configuration.
T-008	General	Provide ability to view key performance indicators and other organizational performance data on a user-friendly intuitive dashboard.	Off the Shelf			Aurigo Masterworks Core	N/A	Users can configure dashboards to give an up-to-the-minute view on any data object in Masterworks.
T-009	General	Provide the capability to integrate with a future WV DOT business intelligence environment.	Customization	Medium		Aurigo Masterworks Core	N/A	The Aurigo Masterworks API can be used to develop an integration with a future WV DOT BI environment.
T-010	General	Provide a solution which is architected to support the ability to have 24-hour/7 day a week access (excluding defined maintenance windows) to the reporting functions.	Off the Shelf			Aurigo Masterworks Core	N/A	Users will be able to access all features of Masterworks outside of defined maintenance windows.
T-011	General	Provide user access to predefined reports available within the Vendor solution without requiring the installation of any client software.	Off the Shelf			Masterworks Core	N/A	Reports generated by Masterworks are viewable within Masterworks.
T-012	General	Provide user access to the functionality of the adhoc query tool for a minimum of 80% of the available functionality without requiring the installation of any client software (it is recognized that some capabilities utilized by power users may require the installation of additional software on the client desktop).	Off the Shelf			Masterworks Core	N/A	The ad-hoc query tool is available to all users who have been granted the appropriate permissions by a System Administrator.

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PT-013	General	Provide user access to the forecasting capabilities within the Vendor solution for a minimum of 50% of the available forecasting capabilities without requiring the installation of any client software.	Off the Shelf			Capital Planning	N/A	Forecasting capabilities within Masterworks take place entirely within the application with no third-party software necessary.
PT-014	General	Provide user access to analysis, modeling and dashboarding tools within the Vendor solution for a minimum of 50% of the available capabilities within these functions without requiring the installation of any client software.	Off the Shelf			Capital planning	N/A	Analysis, modeling, and dashboard tools within Masterworks are contained entirely within the app.
PT-015	General	Leverage the roles and security definitions that will be deployed for the main right of way management system within the reporting and business function to minimize duplication of security administration functions.	Off the Shelf			Masterworks Core, Right of Way and Land Management	N/A	Roles and permissions defined by System Administrators cascade through all modules of Masterworks.
PT-016	General	Support utilization of the same hardware and operating system specifications (architectural landscape) that are required for the operational platform for the reporting environment to the extent feasible.	Off the Shelf			Masterworks Core	N/A	The reporting environment is integrated into the operational platform from a user perspective. There are no specific requirements for the reporting system versus the app.
PT-017	General	Provide a reporting solution which is architected to allow sizing of data repositories to meet changing business needs allowing clients and servers to be added, upgraded or removed as computing capacity needs change, without reconfiguring the operational system or reporting environment.	Off the Shelf			Masterworks Core	N/A	Aurigo manages the data environment and will auto-scale the database servers as necessary to accommodate the size of the database. This will be transparent to the end user.
PT-018	Report Portal	Provide users with a personalized report portal that allows access to only those reports that the user is authorized to see consistent with role-based security definitions.	Off the Shelf			Masterworks Core	N/A	Users will have access to reports according to the security role(s) granted to the user. Users will also have a My Reports area where they can build personalized reports.
PT-019	Report Portal	Display on the reports portal a list of reports that have been distributed to the user (i.e. the user has been granted authorization to view a report by the designated report publisher/owner).	Off the Shelf			Masterworks Core	N/A	Users will see only the reports that they have access to.
PT-020	Report Portal	Display on the reports portal a list of saved personalized reports and ad-hoc queries that the user has authority to either create or modify in the user's personal reports list.	Off the Shelf			Masterworks Core	N/A	Users will be able to see personalized reports and queries in their My Reports area.
PT-021	Report Portal	Allow users to search existing reports inventory and subscribe to reports after requesting and receiving permission from the report owner/publisher.	Off the Shelf			Masterworks Core	N/A	Users can search for existing reports that they are able to access through the roles that the user belongs to.
PT-022	Report Portal	Provide the ability for designated report publishers to un-publish reports to individual users or groups of users, with the un-publication subject to approval based on WV DOT business rules.	Does Not Meet			Masterworks Core	N/A	Reports in Aurigo Masterworks are generated run-time by the permissioned users, Workflow approval process for Reports from the system is not supported.
PT-023	Report Portal	Allow end-users to share saved personalized reports and ad-hoc queries for use by another user.	Off the Shelf			Masterworks Core	N/A	Reports and queries can be shared amongst users.

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T-024	Report Portal	Allow end-users to delete shared reports from their personal reports list without deleting the shared report from another user's personal reports list.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement.
T-025	Report Portal	Allow users to refresh (run) saved personal reports or ad-hoc queries from the portal with an option to run in the background and send a notification to the user upon completion.	Off the Shelf			Masterworks Core	N/A	Users can run background reports on demand.
T-026	Standard Report Features	Allow users to execute reports and modify report query parameters on-line and allow users to save modified report parameter sets as personal versions without impacting the base query.	Off the Shelf			Masterworks Core	N/A	Users can save modified versions of reports and queries as their own.
T-027	Standard Report Features	Provide drill down capability from summary information to the supporting detail transactions and drill up from the detail transaction to the summary information.	Off the Shelf			Masterworks Core	N/A	Users can drill down and drill into data from summary reports and vice versa.
T-028	Standard Report Features	Provide, as part of drill down functionality, the ability to print the expanded sections of the drill down results with the content of the original query results.	Off the Shelf			Masterworks Core	N/A	Reports that have been drilled into can be printed with the original context.
T-029	Standard Report Features	Link the report generator directly to the data dictionary to provide point and click data item selection and drag-and-drop formatting by the user.	Off the Shelf			Masterworks Core	N/A	Masterworks has an built Ad-hoc Report Builder that allows users to choose the data for generating the reports and drag and drop facility for formatting the reports as per the requirement.
T-030	Standard Report Features	Allow users to define or modify the sort order of reports.	Off the Shelf			Masterworks Core	N/A	Report sort order can be defined or edited in the report builder.
T-031	Standard Report Features	Allow users to search for data, transactions or documents using a range of data values.	Off the Shelf			Masterworks Core	N/A	Any data stored in the system can be searched using Enterprise Search.
T-032	Standard Report Features	Provide authorized users with the capability to perform a search within a report output/results set.	Off the Shelf			Masterworks Core	N/A	Masterworks has the ability to search for text within a report once the report is generated.
T-033	Standard Report Features	Provide authorized users with the capability to perform searches with full "if..then..else" logic within a report output/results set.	Does Not Meet			Masterworks Core	N/A	Aurigo Masterworks Report engine does not have this capability.
T-034	Standard Report Features	Provide authorized users with the capability to perform free-form text searching within a report output/results set. Search capability shall include the specification of words that are in a given range of words and shall include embedded, attached or linked documents.	Does Not Meet			Masterworks Core	N/A	Aurigo Masterworks has the ability to search for text once the report is generated, however free form text searching capability within the embedded, attached, or linked documents is not available.
T-035	Standard Report Features	Present data in both tabular and graphical formats.	Off the Shelf			Masterworks Core	N/A	Masterworks allows users to present data in a variety of formats.
T-036	Standard Report Features	Provide reporting and analytical capabilities with a similar user interface/user experience to the extent practical as other Right of Way Management system functions (reporting toolset should not have a significantly different look and feel to the end-user from other parts of the Vendor system).	Off the Shelf			Masterworks Core	N/A	The reporting toolset is built directly into Masterworks and has a similar user interface to the rest of the application.

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PT-037	Standard Report Features	Provide ability to allow the results from any online search or query performed within the Vendor solution to be printed.	Off the Shelf			Masterworks Core	N/A	Search and query results can be printed.
PT-038	Standard Report Features	Provide standard print capabilities such as those typically available in Windows-based products such as print preview, print a range of pages, print a number of copies, etc.	Off the Shelf			Masterworks Core	N/A	Masterworks provides standard print functionality.
PT-039	Standard Report Features	Provide ability to schedule a report to run automatically if certain conditions (business rules) are met.	Off the Shelf			Masterworks Core	N/A	A workflow can be created in Masterworks to trigger a report when certain business rules are met.
PT-040	Standard Report Features	Support export of query and report results as an external database (for example in Microsoft Access or SQL Server readable formats).	Off the Shelf			Masterworks Core	N/A	Query and report results in Masterworks can be exported into readable files such as formatted Excel, CSV, and XML files and then imported into an external database.
PT-041	Standard Report Features	Support export of query and report results in a variety of different industry standard formats including but not limited to .xls or .xlsx, .doc or .docx, PDF, .txt, XML, ASCII, comma delimited, tab delimited, etc.	Off the Shelf			Masterworks Core	N/A	Masterworks exports data in the listed formats.
PT-042	Standard Report Features	Provide for report distribution based on events, process milestones, or predefined data thresholds or values, e.g., based on data values contained within the report (i.e., conditional operators >, <, =, etc.)	Customization	Medium		Masterworks Core	N/A	Masterworks will be customized to meet this requirement.
PT-043	Standard Report Features	Provide the capability to integrate third party report distribution software solutions.	Off the Shelf			Masterworks Core	N/A	Masterworks can be integrated with third-party tools either through the Masterworks API or through a manual export/import process.
PT-044	Standard Report Features	Provide functionality to distribute reports by a variety of methods such as sending links to reports via email, web, fax, or PDA.	Modification to Base Code	Medium		Masterworks Core	N/A	Masterworks comes out of the box with the ability to distribute links to reports to internal Masterworks users. Distributing links to external users through media other than email is not available in the base product.
PT-045	Standard Report Features	Support effective date selection and query including Boolean operations such as date ranges.	Off the Shelf			Masterworks Core	N/A	Users can search for data using date ranges where applicable.
PT-046	Standard Report Features	Provide functionality for the user to incorporate formulas, functions, and mathematical calculations into reports as well as typical grouping, mathematical and statistical functions on data in reports (such as sum, count, average, etc.)	Off the Shelf with Configuration			Masterworks Core	N/A	Formulas, functions, grouping, sorting, and mathematical and statistical functions can be configured on reports.
PT-047	Standard Report Features	Provide the ability to create and specify report templates.	Off the Shelf			Masterworks Core	N/A	Users can create report templates in Masterworks.
PT-048	Standard Report Features	Provide wizards to guide the users through report building steps.	Does Not Meet			Masterworks Core	N/A	The report creation flow in Masterworks is simple, easy-to-use, and straightforward without any special knowledge of data query languages necessary.

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PT-049	Standard Report Features	Provide cursor selection and drag-and-drop features to assist users in formatting of files, elements, and operands (e.g., +, -, /, *) from data dictionary or other pre-established lists.	Off the Shelf with Configuration			Masterworks Core	N/A	Aurigo Masterworks Report Designer has the ability to define and format reports using a drag and drop capability. The drag and drop includes required items and operands.
PT-050	Standard Report Features	Provide graphical report layout tools and drag-and-drop features to assist users in formatting reports and inquires.	Off the Shelf			Masterworks Core	N/A	Reports can be formatted using a graphical report layout tool.
PT-051	Standard Report Features	Provide support for graphical data visualization features including but not limited to stacked bar charts, min/mid/max line graphs, regression lines, dashboard gauges, etc.	Off the Shelf			Masterworks Core	N/A	Masterworks provides multiple means to visualize data.
PT-052	Standard Report Features	Provide ability to link from reporting tool to Microsoft Office graphic, spreadsheet and presentation applications.	Off the Shelf			Masterworks Core	N/A	Masterworks can export report data to Excel and PowerPoint directly.
PT-053	Ad-hoc Query	Allow users to build ad-hoc queries to report on any fields in the Vendor solution for which they are authorized using one or more of a combination of different criteria; provide online access to a data dictionary showing data element and table to assist query building.	Off the Shelf			Masterworks Core	N/A	Masterworks allows users to select fields from a drop-down list in the Report Builder.
PT-054	Ad-hoc Query	Allow a user to save an ad-hoc query for later execution without impacting any base query that was used as a start point.	Off the Shelf			Masterworks Core	N/A	Users can save ad-hoc queries.
PT-055	Ad-hoc Query	Display a user's saved ad-hoc queries by descriptive name on the user's report portal.	Off the Shelf			Masterworks Core	N/A	Users can assign names to saved queries.
PT-056	Ad-hoc Query	Allow a user to authorize one or more additional users to have access to a saved ad-hoc query through the report portal.	Off the Shelf			Masterworks Core	N/A	Ad-hoc Reports created by one user can be shared with other users.
PT-057	Ad-hoc Query	Display any ad-hoc queries that are authorized (shared) by one user for use by a second user on the second user's report portal.	Off the Shelf			Masterworks Core	N/A	Users can share reports with users by role.
PT-058	Ad-hoc Query	Provide ability to track data by user-defined performance indicators.	Off the Shelf			Masterworks Core	N/A	Users can build custom dashboards to display the metrics they want.
PT-059	Report Administration	Provide a solution architected so as to centrally manage the reporting tool set to ensure that any updates are distributed to users and that all users are accessing the same version of the reporting software.	Off the Shelf			Masterworks Core	N/A	The Masterworks reporting tool is contained entirely within the application. All users use the same version of the software.
PT-060	Report Administration	Ensure solution is architected so system performance is not impacted when a large report or inquiry is being run.	Off the Shelf			Masterworks Core	N/A	Reporting servers are separate from app servers to ensure the application performance does not degrade when large reports are being processed.
PT-061	Report Administration	Provide the ability to schedule, view and modify the start time for batch printing including any dependencies on certain business conditions or events; provide option to restrict batch printing of large volume outputs by job or to certain authorized users to minimize on paper usage.	Does Not Meet			Masterworks Core	N/A	Masterworks does not have this capability.
PT-062	Report Administration	Enable users to run ad hoc reports and queries without degradation of system performance.	Off the Shelf			Masterworks Core	N/A	Ad-hoc reports and queries will not degrade system performance.

**WV DOT Right-of-Way, Utilities and Railroad Management System
Management Reporting Requirements**

Req. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
PT-063	Report Administration	Allow the system administrator or other authorized user to define limits on the execution time for a report or query and/or the numbers being retrieved.	Off the Shelf with Configuration			Masterworks Core	N/A	This can be configured by the System Administrator.
PT-064	Report Administration	Cancel automatically a query or report job if it fails to meet system administrator defined criteria (e.g., time limits, infinite loops, excessive pages, etc.).	Off the Shelf			Masterworks Core	N/A	Report processing stops after the defined time limit to avoid deadlocks or other performance issues.
PT-065	Report Administration	Provide the ability for authorized users or system administrator to terminate any query or report that significantly reduces system performance.	Off the Shelf			Masterworks Core	N/A	Report processing stops after the defined time limit to avoid deadlocks or other performance issues.
PT-066	Report Administration	Allow system administrator or other authorized user to override parameters for an individual query or report.	Off the Shelf			Masterworks Core	N/A	System administrators have access to edit queries and reports.
PT-067	Report Administration	Provide functionality to audit exports of report data and modifications to report definitions.	Customization	Large		Masterworks Core	N/A	Data exports and changes to report definitions are tracked in the system Audit Log, which is accessible by system administrators.
PT-068	Report Administration	Provide the ability to configure reports such that information can be suppressed based on a user's role.	Off the Shelf			Masterworks Core	N/A	Reports in Masterworks are permission-driven. Users can access the data through reports based on the user's role permissions and project access.
PT-069	Report Administration	Provide reports on user production statistics by user ID, time of day, length of job, etc. to determine who is viewing a report, what reports are being used and resources consumed by department/user suitable for billing purposes.	Customization	Medium		Masterworks Core	N/A	Audit Reports exist in the system to determine Login Details, users using the application, duration of use, etc. Audit Reports also exist on various actions performed in the application such as Creating, Editing, and Deleting records. Masterworks doesn't have Audit Reports for identifying users running a report. Resource consumption for billing reports can be configured to meet this requirement.
PT-070	Report Administration	Maintain an active metadata repository that contains definitions of all data elements and attributes within the Vendor's solution (maintain both product meta-data and user configured changes).	Off the Shelf with Configuration	Small		Masterworks Core	N/A	System Administrators will be able to access a metadata repository.

WVDOT Right-of-Way, Utilities and Railroad Management System
Application Architecture Reqmnts

Req. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, If Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
PP-001	General	Provide a suite of fully-integrated application modules in which data captured in one module is readily available for use and updated as appropriate in other modules of the system.	Off the Shelf			Masterworks Core, All Installed Modules	N/A	All data stored in Masterworks is stored in the same database, making it accessible throughout the application.
PP-002	General	Provide ability to share all related business information across functional areas and organizations, subject to application security and user-defined business rules and security considerations.	Off the Shelf			Masterworks Core	N/A	Access to forms, workflows, and reports within Masterworks is controlled through role-based permissions, which are configured by the system administrator.
PP-003	General	Provide an integrated data management structure that is utilized across the proposed software solution minimizing system processing or administration required on the data integration points.	Off the Shelf			Masterworks Core, all installed modules	N/A	All data stored in Masterworks is stored in the same database, making it accessible throughout the application.
PP-004	General	Provide user-controlled definition and maintenance of system values and business rules in tables, system configuration files, coding, and business rules in data structures and interfaces without requiring programmer intervention to modify and providing the capability for an application administrator or other authorized users to manage and maintain system configurations, settings, and data tables.	Off the Shelf			Masterworks Core	N/A	Forms, workflows, reports, security settings, and library tables are all configured and maintained by the customer system administrators.
PP-005	General	Update all related modules and tables immediately with a single entry; that is, any change to a project attribute or project status information is made only once but takes effect throughout the system.	Off the Shelf with Configuration			Masterworks Core	N/A	Attributes inside the system are built with defined relationships in the application. Modification of data will have an immediate effect in related tables with a single entry.
PP-006	General	Provide means of altering tables and/or data structures to support user-defined fields and capability for system administrator or other authorized users to create new data items on-line and automatically update a global data dictionary with these new elements.	Off the Shelf			Masterworks Core	N/A	Tables and data structures are stored in relation to forms in Masterworks; updating table fields and data structures is as simple as updating the form in the Form Builder. Data dictionaries are stored in the Masterworks Library. Both forms and Library data are maintained by the system administrator.
PP-007	General	Provide application administrator or other authorized user with screen layout configuration capabilities including movement of fields on the screen and/or across tables, removal of fields, addition of user-defined fields, reorder or consolidation of tables, buttons to enable prints and selection of related reports, links to other business objects (such as CAD drawings, user manuals, project records, contract records, etc.)	Off the Shelf			Aurigo Masterworks Cloud Platform	N/A	The Masterworks Form Builder has a visual interface that allows system administrators to perform all the functions in this requirement.
PP-008	General	Support consistency in terms of field labels such that a screen label defined in one place would be referred to in the same way everywhere and separated by line of business, role, etc.	Off the Shelf			Masterworks Core	N/A	Field labels and layouts are determined by the configuration of the form in the Form Builder.
PP-009	General	Within the system, utilize a design which provides the end user with a perspective of real-time update of data (even if some processes may be happening in the background to complete database updates); that is, users should not be required to toggle back and forth from a screen being used to perform a business process using a job queue to check the status of a batch/background task being able to proceed to the next screen in a series of screens required to perform a specific business function/task.	Customization	Small		Masterworks Core	N/A	Any background process and queue jobs that are being run can be set up with background email notifications to relevant users to let them know that the process is completed.
PP-010	General	Perform transactions in real-time in the sense that online access will display the most current element value (e.g., if a user changes the value of a data element on one screen, the newly changed data value will be shown when the user moves to another screen with that same data element).	Off the Shelf			Masterworks Core	N/A	Masterworks always shows up-to-the-minute data upon screen refresh.
PP-011	General	Edit all system input according to user-defined business rules so that the rules are appropriately and consistently applied and data is validated at the time the data is entered into the system (on-line or via a batch transaction).	Off the Shelf			Masterworks Core	N/A	Forms are built with data validation rules on each field that are defined by the form designer. Data entered and imported into forms are subject to the defined validation rules.

WVDOT Right-of-Way, Utilities and Railroad Management System
Application Architecture Reqmnts

APP-012	General	Utilize effective-dated transactions and table updates (either dated for future action or dated to be retroactive) with the ability to specify data edits by type of transaction.	Off the Shelf with Configuration			Masterworks Core	N/A	Effective Transaction dates can be set up in the system. Dates can be future or retroactive based on the requirement. Specific business validations can be set on these fields based on the requirement to specify data edits.
APP-013	General	Support multiple concurrent application sessions for each user; each concurrent session must be able to support the same security profile or a different profile if the user has multiple profiles.	Does Not Meet			Masterworks Core	N/A	One login session runs across all instances of a browser for a user. Users will have to use different browsers on the same computer to meet this requirement.
APP-014	General	Provide capability for a user to have multiple screens or tabs open within a single user session.	Off the Shelf			Masterworks Core	N/A	One login session runs across all instances of a browser for a user.
APP-015	General	Maintain security logs and audit trails distinctly for each concurrent user session.	Off the Shelf			Masterworks Core	N/A	Security logs and audit trails reflect user sessions.
APP-016	General	Support encryption, masking, or hiding of any fields with restricted access to only authorized users by department/business unit and role and responsibility.	Off the Shelf			Masterworks Core	N/A	Each field on a form can be restricted so only users with certain security roles can view it.
APP-017	General	Provide capability to indicate at the field level user classes or individual users who are authorized to view masked or encrypted fields.	Off the Shelf with Configuration			Masterworks Core	N/A	Specific fields or sets of fields can be set as read-only or hidden based on users and user roles.
APP-018	General	Allow display of masked, hidden, or encrypted fields by an authorized user.	Off the Shelf with Configuration			Masterworks Core	N/A	Specific fields or sets of fields can be set as read-only or hidden based on users and user roles.
APP-019	General	Comply with the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA) Section 508 standards for accessibility of all system functions.	Off the Shelf			Masterworks Core	N/A	Masterworks is ADA Section 508 compliant.
APP-020	User Interface	Utilize a consistent user interface across the software (excluding proposed third party solutions) including user definable hot keys; screen naming functions; navigation patterns; consistent use of controls; and online help and menus (as defined by the user's security profile).	Off the Shelf			Masterworks Core	N/A	Masterworks meets all requirements with the exception of the ability to define hot keys.
APP-021	User Interface	Ensure messages appear in a consistent format across all system functions for both batch and on-line processing.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement.
APP-022	User Interface	Allow manual entry and also context specific drop-down lists of all valid values for each validated field where appropriate.	Off the Shelf with Configuration			Masterworks Core	N/A	The Aurigo Masterworks form framework has various types of input controls such as text box, text area, numeric, dropdown, smart search dropdown, radio button, checkbox, list, etc.
APP-023	User Interface	Provide immediate transfer/paste of value[s] from a "pop up" list of values tables to the appropriate field when selected.	Off the Shelf			Masterworks Core	N/A	The Aurigo Masterworks form framework has a picker control that allows users to select a list of value(s) from a pop-up list of values, and on selection of the value(s) from the pop-up, the selected value gets transferred to the respective control.
APP-024	User Interface	Architect so as to have interfaces proceed directly and automatically to the next appropriate field when data is entered, for example "Tabbing" through fields in a defined sequence.	Off the Shelf			Masterworks Core	N/A	The sequence of data entry fields can be defined when the form is configured in the Masterworks form builder.
APP-025	User Interface	Allow user to directly access other input screens and modules without need for backing out of menus or menu paths.	Off the Shelf			Masterworks Core	N/A	Masterworks UI uses breadcrumbs, a sidebar menu, and icons to allow the user to navigate to different areas of the application without having to back out of menus or menu paths.
APP-026	User Interface	Allow navigation between multiple, related input screens without losing any information input on the original (or header) screen.	Does Not Meet			Masterworks Core	N/A	Masterworks does not cache input when the user navigates from an input screen.
APP-027	User Interface	Allow user to move backward within a menu structure and screens without losing previously entered data.	Does Not Meet			Masterworks Core	N/A	Masterworks does not cache input when a user navigates from an input screen.
APP-028	User Interface	Allow a user to cancel transaction and/or exit any document or screen without saving changes.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement.
APP-029	User Interface	Support cut and paste for copying data between screens.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement.
APP-030	User Interface	Provide a display that indicates (e.g., highlighting) all required fields for entry on any screen.	Off the Shelf			Masterworks Core	N/A	Mandatory form fields will be indicated as such on the user input screen.
APP-031	User Interface	Provide a search and filter capability on user screens containing columns of data.	Off the Shelf			Masterworks Core	N/A	Users have the ability to search and filter list view pages in Masterworks.

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APP-032	Functions and Features	Support use of keyboard data entry only (i.e., allow screen functions to be performed without use of a mouse).	Off the Shelf			Masterworks Core	N/A	Users can use the keyboard to navigate Masterworks.
APP-033	Functions and Features	Support the generation of email messages by the system based on various system/business events utilizing SMTP for outbound messages.	Off the Shelf			Masterworks Core	N/A	Masterworks has a built-in notification engine that sends out messages based on conditions defined by the Agency. Aurigo can configure Agency-specific messages and conditions for the Agency.
APP-034	Functions and Features	Allow any master record or validation table entry to be activated or inactivated.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement out of the box.
APP-035	Functions and Features	Provide for wildcard, partial, and multi-term searches: Include ability to define must-have and optional criteria.	Off the Shelf			Masterworks Core	N/A	Masterworks has a comprehensive search engine.
APP-036	Functions and Features	Provide capability to auto-populate the value of a field based on the value of a previously entered field using user-defined business rules and/or validations.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement.
APP-037	Functions and Features	Allow overriding of system or user-defined defaults based on business rules with an audit trail within individual functions.	Off the Shelf			Masterworks Core	N/A	Workflows and forms can be configured with business rules to ensure forms have appropriate values.
APP-038	Functions and Features	Allow for descriptions on all transactions.	Off the Shelf with Configuration	Small		Masterworks Core	N/A	A form field will be configured to allow descriptions on all transactions.
APP-039	Functions and Features	Provide/support spell check capability.	Off the Shelf			Masterworks Core	N/A	Masterworks supports browser-based spellcheck functionality.
APP-040	Functions and Features	Support text formatting in the system (i.e., the ability to support mixed case letters, word wrap, line wrap, and character count when there is a limit, etc.)	Off the Shelf			Masterworks Core	N/A	Masterworks forms with text fields can be configured to meet these requirements.
APP-041	Functions and Features	Provide query features that supports alternate field lookup (e.g., using item name to look up item code or project name to look-up project number).	Off the Shelf with Configuration			Masterworks Core	N/A	A smart-search dropdown in the Aurigo Masterworks form framework allows users to search based on multiple input fields. Once the user selects the value, it can display one of the fields. Hence, if the smart search is configured for a project field, it can search on Project Name, Number, and Description. The user can type in the Project Name and select the required Project; it will update the corresponding Project Number in the field. This can be configured for the fields as required.
APP-042	Functions and Features	Provide table look-up fields that can be linked to or refer to other tables.	Customization	Small		Masterworks Core	N/A	This will need to be customized as per requirement.
APP-043	Functions and Features	Utilize effective and expiration dates to version reference tables and data.	Customization	Medium		Masterworks Core	N/A	This will need to be customized as per requirement.
APP-044	Functions and Features	Provide capability to add, change, and inactivate reference tables in both batch and on-line mode.	Customization	Small		Masterworks Core	N/A	This will need to be customized as per requirement.
APP-045	Functions and Features	Provide capability to recognize and capture rejected (bypassed) transactions for review, correction and reprocessing: Place batch loaded reference data into a suspended state if errors exist in non-key fields. This process should be non-blocking and the processing should continue.	Off the Shelf			Masterworks Core	N/A	Masterworks produces an import log for transactions that do not meet validation requirements. Valid data will still be imported.
APP-046	Functions and Features	Provide capability to perform cross-reference table validations.	Customization	Small		Masterworks Core	N/A	This will need to be customized as per requirement.
APP-047	Functions and Features	Support use of "digital signatures" or "online approvals" to initiate or approve a business event within the system using user authentication within the system via validation of user credentials at the time the user signed on to the system; Support these digital signatures for approvals and rejections of workflow tasks.	Off the Shelf			Masterworks Core	N/A	Masterworks supports digital approval of data objects through workflows.
APP-048	Functions and Features	Provide ability to integrate with third-party eSignature solutions to support electronic signature approval processes initiated within the software solution.	Off the Shelf			Masterworks Core	N/A	Masterworks has an out-of-the-box integration with DocuSign.

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APP-049	Functions and Features	Support mass changes to defined groups of transactions or data with appropriate audit trail.	Customization	Small				Batch Edits are performed in the application using Excel Import. Other instances where large data editing is used, like Schedule, Budget, or Contract Items are done with inline editing. Grids within a form can be edited with inline editing. Editing in any form, regardless of method, will be tracked through the Audit Log.
APP-050	Functions and Features	Provide capability to review and approve a batch load prior to execution.	Off the Shelf				Masterworks Core	N/A
APP-051	Functions and Features	Provide capability to back out (rollback) previously executed batch loads.	Does Not Meet				Masterworks Core	N/A
APP-052	Functions and Features	Provide capability to define/set-up batch checkpoints.	Does Not Meet				Masterworks Core	N/A
APP-053	Functions and Features	Provide a sequential unique identifier for a batch process.	Off the Shelf				Masterworks Core	N/A
APP-054	Functions and Features	Support ability to add printable and non-printable notes to any field or document.	Off the Shelf				Masterworks Core	N/A
APP-055	Functions and Features	Support creation of user-defined form letters or business forms using system-defined naming standards configurable by the system administrator or authorized user.	Off the Shelf				Masterworks Core	N/A
APP-056	Functions and Features	Provide capability to set-up standard document and letter templates at the department/business unit level for use throughout the system with names, titles, labels, pre-defined backgrounds, etc. using system-defined naming standards configurable by the system administrator or authorized user.	Off the Shelf				Masterworks Core	N/A
APP-057	Functions and Features	Provide automatic date and time stamping of all documents generated by the system.	Off the Shelf				Masterworks Core	N/A
APP-058	Functions and Features	Provide functionality to copy a document in order to create a new document of the same type.	Off the Shelf				Masterworks Core	N/A
APP-059	Functions and Features	Generate special clauses on documents as defined by users or by standard clauses.	Off the Shelf with Configuration				Masterworks Core	N/A
APP-060	Functions and Features	Provide ability to view multiple different file formats for attachment in all modules/functions including, but not limited to, Microsoft Office products, PDF's, and image file formats.	Off the Shelf				Masterworks Core	N/A
APP-061	Functions and Features	Support ability to use the "print screen" function on any screen.	Off the Shelf				Masterworks Core	N/A
APP-062	Functions and Features	Provide ability for authorized end-users to import from a .xls, csv, or a text file meeting import formatting requirements.	Off the Shelf				Masterworks Core	N/A
APP-063	Workflows	Provide tools to model and modify pre-existing workflows or create new workflows (the workflows shall be implementable globally or by specific business units).	Off the Shelf				Masterworks Core	N/A
APP-064	Workflows	Support establishment of user-defined rules-based workflows for any system event or transaction.	Off the Shelf				Masterworks Core	N/A
APP-065	Workflows	Provide bi-directional electronic routing of documents for approval or other tasks through workflow.	Off the Shelf				Masterworks Core	N/A
APP-066	Workflows	Support routing of workflow to multiple destinations based on various user-defined criteria.	Off the Shelf				Masterworks Core	N/A

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APP-067	Workflows	Integrate with WVOT identity management solution (Active Directory) to access organizational hierarchies and incumbent information for current employees in order to establish workflow routings.	Customization	Medium					Aurigo Masterworks has built-in Identity Management integration with ADFS and Azure AD that allows users from Active Directory to log in to the application, however, the rest of the permissions within the application are governed inside the application and not from Active Directory.
APP-068	Workflows	Support parallel approvals and single-threaded approvals in the same approval path.	Off the Shelf				Masterworks Core	N/A	Masterworks supports complex approval paths in workflows.
APP-069	Workflows	Reverse any approvals and return the workflow transaction to the originating user and any other users who had previously approved the transaction in the event that one or more reviewers disapproves a transaction.	Off the Shelf				Masterworks Core	N/A	Workflows can be returned to a previous stage as a result of a user in the workflow not approving a transaction.
APP-070	Workflows	Allow workflow destination to be defined as specific users or a class of users or by using some other user-defined criteria.	Off the Shelf				Masterworks Core	N/A	User roles are valid workflow destinations.
APP-071	Workflows	Allow for copying/extending preconfigured workflows to meet specific business requirements.	Off the Shelf				Masterworks Core	N/A	Preconfigured workflows can be copied and extended using the Masterworks Workflow Designer.
APP-072	Workflows	Support definition of workflow events based on user-defined criteria including transaction code; department/business unit; user roles and responsibilities; user position in organization; data values and other user-defined values or parameters.	Off the Shelf				Masterworks Core	N/A	Workflow routings can be constructed around user-defined criteria.
APP-073	Workflows	Allow user-defined standard approval timeframes.	Off the Shelf				Masterworks Core	N/A	Masterworks Workflow Builder supports this.
APP-074	Workflows	Allow user-defined alternative approval paths.	Off the Shelf				Masterworks Core	N/A	System Administrators can define multiple approval paths within a workflow.
APP-075	Workflows	Support multiple levels of approvals for transactions based on profile security and other user-defined criteria.	Off the Shelf				Masterworks Core	N/A	Transactions can have any number of approvals within the workflow.
APP-076	Workflows	Allow a user to enter descriptive information in a note field or to upload and attach a file (Microsoft Office, Microsoft Office 365, PDF, JPEG, etc.) to content items within the workflow and store these notes with user id and date/time stamp.	Off the Shelf with Configuration	Small			Masterworks Core	N/A	A form and workflow will be configured to meet this requirement.
APP-077	Workflows	Allow workflows to be designated as either 'informational' or 'action (such as approval) required'.	Off the Shelf				Masterworks Core	N/A	Masterworks supports this requirement.
APP-078	Workflows	Ensure a transaction is not finalized until all required approval workflows are complete.	Off the Shelf				Masterworks Core	N/A	The end stage of the approval workflow can be configured to finalize the transaction in the workflow.
APP-079	Workflows	Allow a workflow to be designed to support either simultaneous actions or require consecutive actions, as defined by an authorized user.	Off the Shelf				Masterworks Core	N/A	Workflows in Masterworks can support both parallel and sequential sections.
APP-080	Workflows	Provide a dashboard which displays the status of workflows including workflows pending for a user-defined period of time.	Off the Shelf with Configuration	Small			Masterworks Core	N/A	A dashboard can be configured to show this information.
APP-081	Workflows	Provide capability for personnel, or their supervisors to delegate their approval authority to another individual or work group, along with allowing the delegate to access their "inbox" should that be desired by the user. This function is primarily to allow for coverage when an employee is out on leave.	Off the Shelf				Masterworks Core	N/A	Approval authority, including showing tasks pending on the user, can be delegated to a user group.
APP-082	Workflows	Provide email notification of workflow items.	Off the Shelf				Masterworks Core	N/A	Masterworks will notify users when a task is assigned to them through a workflow.
APP-083	Workflows	Provide capability to allow an application system administrator to authorize a user to be able to opt in/opt out of email notifications.	Off the Shelf				Masterworks Core	N/A	Every user in the application has an option to enable/disable email notifications.
APP-084	Workflows	Allow user with appropriate authorization to disable email notification (opt in/opt out capability).	Off the Shelf				Masterworks Core	N/A	Every user in the application has an option to enable/disable email notifications.
APP-085	Workflows	Provide integrated workflow error handling.	Off the Shelf				Masterworks Core	N/A	Masterworks meets this requirement.
APP-086	Workflows	Track workflow approvals and rejections.	Off the Shelf				Masterworks Core	N/A	Masterworks allows workflow approvals and rejections to be tracked.
APP-087	Workflows	Support various user-defined transaction statuses, including approved, rejected, pending, under consideration, etc.	Off the Shelf				Masterworks Core	N/A	Masterworks Workflow Designer meets this requirement.
APP-088	Workflows	Provide for the display of the status of items submitted to a workflow at any time.	Off the Shelf				Masterworks Core	N/A	Stakeholders can see the up-to-the-minute status of an item submitted to a workflow at a glance.

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APP-089	Workflows	Maintain document status based on routing and approvals and allow authorized users to determine where the document is in the routing process.	Off the Shelf				Masterworks Core	N/A	Masterworks meets this requirement out of the box.
APP-090	Workflows	Notify users automatically via email when items in their "inbox" have gone unprocessed for a user-defined period of time.	Off the Shelf				Masterworks Core	N/A	Masterworks will send follow-up notifications after a period of time defined in the workflow if the item has not proceeded to the next stage.
APP-091	Workflows	Route transactions automatically to a workgroup after a specific time of inaction (based on user-defined criteria).	Off the Shelf				Masterworks Core	N/A	Masterworks meets this requirement out of the box.
APP-092	Workflows	Allow steps in the workflow to be bypassed by allowing approvers higher in the approval chain to approve transactions. Should this transaction be in the "inbox" of an approver lower in the approval chain automatically remove transaction from lower approver's inbox.	Off the Shelf				Masterworks Core	N/A	Approval stages can be assigned to multiple user groups in a workflow. User groups that are higher in the approval chain can be assigned to a lower-level approval stage for convenience and the ability to bypass.
APP-093	Workflows	Support the use of a "master approver" for each workflow who may approve a transaction at any time whether included in the normal workflow or not.	Off the Shelf				Masterworks Core	N/A	This can be accomplished via a special user role that can be assigned to the master approver or master approvers.
APP-094	Mobile Technology	System should be "mobile-friendly" for mobile platforms/environments including iOS and Android.	Off the Shelf				Masterworks Core	N/A	Masterworks Mobile is supported on iOS, Android, and Windows mobile devices.
APP-095	Mobile Technology	Utilize responsive design to ensure that web pages display accurately on a range of screen sizes and aspect ratios including smart phones, desktops, tablets, etc.	Off the Shelf				Masterworks Core	N/A	Aurigo recommends users use the native iOS, Android, or Windows Mobile app to use Masterworks on a mobile device. Mobile devices running Firefox, Chrome, or Safari can use Masterworks in desktop mode.
APP-096	Security	Comply with WV DOT and any applicable State of West Virginia security policies.	Off the Shelf				Masterworks Core	N/A	Masterworks will comply with WV DOT and State of West Virginia security policies.
APP-097	Security	Comply with encryption requirements in Internal Revenue Service Publication 1075.	Off the Shelf				Masterworks Core	N/A	Masterworks is hosted on Amazon AWS servers, which use 256-bit encryption for all data in-transit and at rest. This encryption meets the requirements outlined in section 7.1.2 of IRS Publication 1075, "Encryption Requirements".
APP-098	Security	Comply with Federal Information Processing Standard (FIPS) 140 or most current.	Off the Shelf				Masterworks Core	N/A	Amazon Web Services AES 256 encryption is FIPS-140 compliant.
APP-099	Security	Comply with ISO/IEC 15408: Common Criteria for Information Technology Security Evaluation.	Does Not Meet	Large			Masterworks Core	N/A	We are FedRAMP Ready. We are SOC 2 Type 2 certified. We follow NIST 800-53 recommendations and the same has been implemented throughout the system. We have implemented CIS benchmarks on the servers. We have FIPS 140-3 compliant encryption.
APP-100	Security	Support digital certificates.	Off the Shelf				Masterworks Core	N/A	Masterworks is exclusively served over HTTPS, which requires digital certificates for communication.
APP-101	Security	Support public key infrastructure (PKI).	Off the Shelf				Masterworks Core	N/A	All keys are managed by AWS Platform services without the need to store them outside the AWS Services. When the keys are required, they are accessed by the IAM (Identity and Access Management) roles configured on AWS. We use TLS 1.2 for all internal and external communication.
APP-102	Security	Support Transport Layer Security (TLS) > 1.2.	Off the Shelf				Masterworks Core	N/A	All web interfaces with Aurigo Masterworks are over HTTPS and use TLS 1.2.

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APP-114	Security	Allow system administrator or other authorized users to remove users from one or more user groups including recording of an effective date for end of inclusion in each user group.	Off the Shelf			Masterworks Core	N/A	System Administrator removal of users from one or more user groups is tracked in the system audit log.
APP-115	Security	Log incidents of invalid password attempts which exceed a system-configurable maximum allowable number of attempts capturing user identification entered, type of violation (invalid user id, invalid password or invalid id and password) and date and time of the violation; place the incident log in the audit trail log.	Off the Shelf			Masterworks Core	N/A	Masterworks meets this requirement out of the box.
APP-116	Security	Log incidents of security violations within the system capturing user identification, IP address with X-Forward IP if load balancer is involved, system function for which unauthorized access was attempted and date and time of security violation.	Off the Shelf			Masterworks Core	N/A	The system log captures all of this information when a security violation occurs.
APP-117	Security	Allow the system administrator or authorized users to generate a formatted user-defined report of invalid password attempts or security violations within the system.	Customization	Medium		Masterworks Core	N/A	Reports will need to be custom-built to meet this requirement.
APP-118	Security	Provide an online function for review of the logs of invalid password attempts or security violations by the system administrator or other authorized users.	Off the Shelf			Masterworks Core	N/A	System administrators can review system logs.
APP-119	Security	Ensure report and ad-hoc query results are subject to the system security model such that users cannot access data through reports and queries for which they are not authorized in the operational system.	Off the Shelf			Masterworks Core	N/A	Users can only access data for which they have access. This includes reports and ad-hoc queries.
APP-120	Security	Support access to the software solution by authorized third-party business partners through VPN or VDI technology, subject to WVDOT and State of West Virginia security procedures for external access.	Off the Shelf with Configuration	Small		Masterworks Core	N/A	Access to Masterworks can be configured to support access from Agency-approved networks only.
APP-121	Security	Provide capability for the system to allow users to choose from a list of security roles (user or group based) if the user has more than one role available to them.	Off the Shelf			Masterworks Core	N/A	Users are able to choose from a list of security roles available to them.
APP-122	Security	Provide capability for the system administrator or an authorized user to delegate proxy roles to other users with an expiration date, and provide capability to notify user of the new proxy; Start and end dates shall be within 30 calendar days of each other.	Customization	Medium		Masterworks Core	N/A	Masterworks will need to be customized to meet this requirement.
APP-123	Security	Allow system administrator or other authorized user to define the allowable period for user inactivity while logged on; such time shall be consistent with WVDOT and State of West Virginia security policy.	Off the Shelf			Masterworks Core	N/A	The amount of time a user is allowed to be inactive can be determined by the Customer and configured by Aurigo.
APP-124	Security	Disconnect or log out a user session when it exceeds the allowable period of inactivity as established by the system administrator and configured in the system.	Off the Shelf			Masterworks Core	N/A	Masterworks will log out a user after a configured period of inactivity.
APP-125	Security	Warn user that they will be disconnected before automatically logging user out of the system.	Off the Shelf			Masterworks Core	N/A	Before a user is logged out due to inactivity, Masterworks will display a dialog box informing the user they are about to be logged out.
APP-126	Security	Ensure security on report creation or distribution software so that a user cannot view/create a report containing data that they are not authorized to see within the system.	Off the Shelf			Masterworks Core	N/A	Masterworks supports this requirement out-of-the-box.
APP-127	Audit Trail	Maintain an audit trail of all user actions that update and access the database including at a minimum user id, action performed, and time/date stamp; this includes any update via online, batch, web services or self-service functions.	Off the Shelf			Masterworks Core	N/A	Masterworks maintains an audit log of user activity.
APP-128	Audit Trail	Provide a standardized audit trail format / row for each data structure (whether that's a table row or document depending on database type) in the system and track information including but not limited to: timestamp when the record was inserted, changed or deleted; user id or program id inserting, changing or deleting the record; copy of record before change/deletion; and copy of record after addition/change.	Off the Shelf			Masterworks Core	N/A	Masterworks has a comprehensive audit trail that meets this requirement.
APP-129	Audit Trail	Provide an audit trail for each interface program which shows: user or program initiating an interface, the date and time of interface execution and the interface completion status (Completed, Completed with Errors, Cancelled, Ended with Errors, etc.).	Customization	Small		Masterworks Core	N/A	Audit trails are created for all integrations using the Masterworks API.

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-130	Archiving	Provide reporting and analysis tools which guide a system data administrator in determining which data is appropriate and safe to archive.	Off the Shelf with Configuration				Masterworks Core	N/A	Aurigo Masterworks Cloud comes with industry-standard reports and dashboards that will help the Agency's users make business decisions. Users can also create Ad-hoc reports by pulling information from tables the users can access. Reports can be run to help users identify records that need to be archived.
-131	Archiving	Provide capability to store specific data elements for an indefinite period of time while other data may be able to be archived after user-defined periods based on record retention policies.	Off the Shelf				Masterworks Core	N/A	Authorized users can manually purge application data. The actual data retention criteria can be configured per the Agency's business requirements.
-132	Archiving	Provide authorized user with ability to mark (and unmark) records for deletion but not removed database until archived.	Customization	Small			Masterworks Core	N/A	Records can be marked as inactive, restricting them from being used in future reports/references.
-133	Archiving	Provide capability to purge, archive, and restore inactive records based on user-defined criteria and tracking history.	Does Not Meet				Masterworks Core	N/A	During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine how the Agency wants to purge, archive, and restore inactive records. As an alternative to removing a record from a table, the record can be flagged as "inactive" and left in the table. This way, the data remains in the table for historical and reporting purposes. Aurigo will configure functionality in Masterworks to allow authorized users to perform bulk updates and set the "inactive" flag.
-134	Archiving	Allow system administrator to define archiving criteria for different types of data.	Customization	Small			Masterworks Core	N/A	During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the archiving criteria that must be used for each data type. Aurigo will configure functionality in Masterworks to allow authorized users to perform bulk data archiving.
-135	Archiving	Provide an automated archiving routine that archives data following the user-defined archiving rules; the process shall be able to be scheduled or manually initiated by an authorized user.	Customization	Small			Masterworks Core	N/A	Processes for automated data archiving must be customized using the Agency's specific requirements. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the parameters that must be used to identify and archive data. Aurigo will configure functionality in Masterworks to allow authorized users to perform bulk data archiving.
-136	Archiving	Provide for restoration of archived data by various parameters including the date range of the archiving process and other user-defined business rules.	Customization	Small			Masterworks Core	N/A	Processes for recovering archived data must be customized using the Agency's specific requirements. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the parameters that must be used to identify and recover archived data. Aurigo will configure functionality in Masterworks to allow authorized users to perform bulk restoration of archived data.
-137	Archiving	Provide a flexible, automated archival routine to archive inactive reference data; this archival routine must validate that other table entries do not use the inactive data before archiving it and maintain overall system referential data integrity.	Off the Shelf with Configuration	Small			Masterworks Core	N/A	Aurigo can configure an automated archival process for the Agency that will archive inactive reference data and do so while maintaining referential integrity. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to understand how the Agency wants the archival process to work and how it must comply with the State, local, and Agency regulations.
-138	Help	Provided a centrally stored and maintained system wide help function.	Off the Shelf with Configuration				Masterworks Core	N/A	This is standard functionality in Masterworks. The Agency's exact implementation and configuration specifications will determine the amount of effort required to meet the Agency's help content requirements. Help content will be tailored specifically for the Agency and is not generic.

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-139	Help	Provide context-sensitive, field-level on-line help features for all screen elements, screen errors, and error codes.	Off the Shelf with Configuration	Small		Masterworks Core	N/A	Field-level help messages are configured during form definition. Error messages are verbose and context-sensitive to aid the user in diagnosing and resolving the issue.
-140	Help	Utilize an on-line help feature which directs the user either to a help screen specific to the field they are on if help is available for that field or to a help screen which is specific to the screen they are on if no field level help is available.	Off the Shelf			Masterworks Core	N/A	On-line help in Masterworks is always context-sensitive unless otherwise specified by the Agency.
-141	Help	Provide table-driven error message handling.	Off the Shelf			Masterworks Core	N/A	Errors caused by invalid data entry in forms are presented so that the user can see the entirety of the invalid data instead of entry-by-entry.
-142	Help	Allow authorized users to modify and maintain error message text.	Off the Shelf			Masterworks Core	N/A	Authorized users can use the Masterworks Form Builder to modify and maintain error message text.
-143	Help	Ensure an error message points the user to the field in error (e.g., by identifying the field name, field number or providing a link to tab to the field).	Off the Shelf			Masterworks Core	N/A	This is standard functionality in Masterworks.
-144	Help	Provide capability to identify processing or navigation path for a screen.	Off the Shelf			Masterworks Core	N/A	Masterworks uses navigation breadcrumbs to show the navigation path for screens.
-145	Help	Allow customization of help files provided with the system by the application system administrator or other authorized users to incorporate WV DOT-wide or business unit/department specific information.	Does Not Meet			Masterworks Core	N/A	During system implementation, the Aurigo Business Analyst and Training Lead will work with the Agency to determine the business unit/department-specific information to go into the help files available within the solution. Each implementation's help files are customized to meet the Agency's exact configuration and business rules at implementation. If business rules change significantly after implementation, the Agency can engage Aurigo's Professional Services team to update the relevant help content. Masterworks does not allow the customization of help files by system administrators.
-146	Help	Allow customization of help files by the system administrator or other authorized user by department/business unit or by roles and responsibilities within the proposed system: users must be able to modify the part of the help text that they are authorized to maintain without impacting other help text.	Does Not Meet			Masterworks Core	N/A	During system implementation, the Aurigo Business Analyst and Training Lead will work with the Agency to determine the business unit/department-specific information to go into the help files available within the solution. Each implementation's help files are customized to meet the Agency's exact configuration and business rules at implementation. If business rules change significantly after implementation, the Agency can engage Aurigo's Professional Services team to update the relevant help content. Masterworks does not allow the customization of help files by system administrators.
-147	Help	Ensure all customized help text and files carry forward automatically during system updates and upgrades.	Off the Shelf			Masterworks Core	N/A	Aurigo will update its standard help file content as needed to reflect any changes to the system after an update or upgrade. Aurigo will not update any customized help text or files the Agency chooses to create and add to the help file content. However, the Agency's custom content will automatically carry forward into the help file content during system updates and upgrades.
-148	User Documentation	Provide user documentation that is comprehensive, clear and easy to use (e.g., user documentation must provide quick answers to questions regarding the navigation of application screens, execution of pre-defined reports, and use of the ad-hoc query capability); it must also contain clear and thorough descriptions of all screen and batch processing functions, screen data, programs, system reports, and any processing parameters.	Off the Shelf			Masterworks Core	N/A	User documentation that meets these requirements will be developed and delivered as part of the implementation. A Quick Start Guide will be provided to the Agency's trainers for distribution to end-users. Both trainers and end-users can keep a hard or soft copy of the Quick Start Guide for easy reference to supplement the in-app help files.

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PP-149	User Documentation	Provide all system documentation and manuals electronically.	Off the Shelf			Masterworks Core	N/A	Aurigo will provide the documentation and manuals to the Agency in soft copy form.
PP-150	User Documentation	Provide search functions for on-line documentation, across all documentation and within component pieces of the on-line documentation.	Off the Shelf			Masterworks Core	N/A	The Masterworks online documentation provided by Aurigo is searchable.
PP-151	User Documentation	Allow system administrator to authorize components of the system documentation to be available for download by authorized users.	Off the Shelf			Masterworks Core	N/A	A Quick Start Guide will be provided to the Agency's trainers for distribution to end-users. Online help is also available, and users will only have access to the online help modules pertaining to the application areas that they are authorized to access.
PP-152	User Documentation	Provide capability to allow authorized users to download user documentation approved by the system administrator for distribution as one or multiple PDF files.	Off the Shelf			Masterworks Core	N/A	The Quick Start Guide can be distributed by the Agency's trainers or system administrators.
PP-153	User Documentation	Enable users to incorporate user-defined documentation into system documentation (e.g., user procedures, business rules, etc.), which is accessible in the same manner as documentation from the software provider.	Does Not Meet			Masterworks Core	N/A	During system implementation, the Aurigo Business Analyst and Training Lead will work with the Agency to determine the business unit/department-specific information to go into the help files available within the solution. Each implementation's help files are customized to meet the Agency's exact configuration and business rules at implementation. If business rules change significantly after implementation, the Agency can engage Aurigo's Professional Services team to update the relevant help content. Masterworks does not allow the customization of help files by system administrators.
PP-154	User Documentation	Support version control for user-defined documentation.	Does Not Meet			Masterworks Core	N/A	During system implementation, the Aurigo Business Analyst and Training Lead will work with the Agency to determine the business unit/department-specific information that needs to go into the help files. Each implementation's help files are customized to meet the exact configuration and business rules defined by the Agency at implementation. If the Agency's user-defined documentation changes after implementation, the Agency can engage Aurigo's Professional Services team to update the relevant help content. Masterworks does not allow the customization of help files by system administrators.
PP-155	Upgradeability	Provide capability for all upgrade and patched processes for the system to automatically re-apply configurations and customizations made by WVDOT (Should these customizations/configurations have to manually be re-applied, the system shall identify these exceptions for manual re-application before applying any upgrade/patch software).	Off the Shelf			Masterworks Core	N/A	Configurations made by the Agency will automatically be carried over and applied during system updates and upgrades.

WVDOT Right-of-Way, Utilities and Railroad Management System
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Req. #	Sub-Category	Business (Functional) Requirement	Vendor Response	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
-001	General	Provide a solution architecture with expandable configurations and customizations, along with the capability to scale more or less for concurrent users and data storage as needed.	Off the Shelf				N/A	Aurigo uses AWS Cloud as its infrastructure services provider on which Masterworks is deployed as a SaaS solution. AWS provides a very high level of flexibility, and Aurigo can easily scale the Agency's solution capacity.
-002	General	Utilize a vendor-independent design that is based on non-proprietary technology and does not require the solution to be operated on proprietary hardware or operating system platforms.	Off the Shelf				N/A	Aurigo Masterworks is a cloud solution that is hosted on Amazon Web Services (AWS). Masterworks runs on MS Windows Servers, and the data is stored in an MS SQL Database. The infrastructure is fully maintained and managed by Aurigo.
-003	General	Implement a system design architected to allow system availability on a continuous basis, (i.e., 24x7). Support high-availability including during patches and updates. Provide a robust data recovery architecture design that minimizes system downtime.	Off the Shelf				N/A	The Aurigo Masterworks Cloud application is scalable and load balance ready. Aurigo can have multiple nodes of the application running in the farm environment. One node can be taken down and upgraded without taking the entire application down.
-004	General	Utilize a service-oriented architecture (SOA) to facilitate seamless integration with heterogeneous internal and external systems.	Off the Shelf				N/A	Aurigo exposes Masterworks' API endpoints to facilitate seamless integration with heterogeneous internal and external systems.
-005	General	Provide the SOA capability which is platform and protocol independent and complies with Advancing Open Standards for the Information Society (OASIS) standards such as WS-Security, WS-Reliability, etc. and utilizing other open-standards (such as JSON, XML, OAuth and SAML).	Off the Shelf				N/A	Aurigo uses REST-based WebAPIs, and therefore Masterworks has SOA capabilities.
-006	General	Support virtualization for all tiers.	Off the Shelf				N/A	Aurigo uses AWS as its infrastructure service provider for virtualization.
-007	General	Provide a browser-based interface.	Off the Shelf				N/A	Masterworks uses a browser-based interface.
-008	General	Deliver content via the current and most recent previous supported browser versions that include but are not limited to Microsoft Edge, Google Chrome, Mozilla Firefox and Safari.	Off the Shelf				N/A	Aurigo Masterworks Cloud supports the current and previous 2 supported versions of Apple Safari, Mozilla Firefox, Microsoft Edge, and Google Chrome.
-009	General	Ensure that content can be delivered via a web browser without requiring browser security settings to be lowered beyond typical industry standards in order for system functionality to perform properly.	Off the Shelf				N/A	This is the standard functionality for Aurigo Masterworks Cloud.
-010	General	Deliver content via browser without Active X controls or plug-in support (such as Java Runtime Environment, Adobe Flash, etc.)	Off the Shelf				N/A	Active X controls and plugin support are not required to run Aurigo Masterworks Cloud.
-011	General	Deliver content via web browser capability available on the iOS and Android.	Off the Shelf				N/A	The best user experience is when Aurigo Masterworks Cloud is run on laptops and desktop screens. Masterworks can be run on iOS and Android devices with smaller screens like those found on tablets and smartphones, but data entry and maneuvering through the screens will be more difficult.
-012	General	Ensure any additional required software required on a desktop can be deployed through industry standard Office Automation push technology.	Off the Shelf with Configuration				N/A	No additional software is required to run Aurigo Masterworks Cloud on a desktop or laptop. There is an optional "Outlook Plugin" component that can be downloaded onto client systems. Standard Office Automation push technology can deploy it on the Agency's client systems. The plugin is used to capture emails and attachments received via email and upload them into Masterworks.
-013	General	Support the following character sets: UTF-8 Unicode, UTF-16 Unicode, and ASCII.	Off the Shelf				N/A	Encoding is supported in Masterworks to meet specific requirements, such as when HTML encoding is needed, similar to the UTF-8 Unicode set.
-014	General	Utilize application stack at all points in terms of the operating system, network, database, desktop, and storage.	Off the Shelf				N/A	Aurigo uses AWS as its Cloud Services Provider. The Cloud stack has a well-defined architecture with layers for all components like network, database, and storage. Aurigo has required automation in place, and it uses the AWS SSM configuration management tool.
-015	General	Ensure Web and security server is 64 bit.	Off the Shelf				N/A	Aurigo only uses 64-bit server operating systems.

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C-016	Enterprise Application Integration	Support connectivity services through TCP/IP IPPB v4 IPPB v6.	Off the Shelf					N/A	Connectivity services using TCP/IP IPPB v4 and IPPB v6 are managed by AWS on the physical infrastructure. Aurigo uses logical configurations for VPCs, subnets, and security groups on AWS.
C-017	Enterprise Application Integration	Provide connectivity across and between WVDOT's network zones.	Off the Shelf with Configuration					N/A	Aurigo will work with the Agency's IT team to establish connectivity between Aurigo's network infrastructure and the Agency's network zones. A signed System Interconnection Agreement will be required.
C-018	Enterprise Application Integration	Provide communication services that guarantee message delivery and handles queuing and encryption for various types of communication (e.g., publish and subscribe, request/reply, etc.)	Off the Shelf					N/A	Aurigo Masterworks Cloud supports both synchronous and asynchronous request/reply, queuing, and encryption communications that guarantee message delivery using SSL over a secure channel.
C-019	Enterprise Application Integration	Provide configurable data-transformation services to handle data validation, calculations, lookups, padding, scrambling, truncation, etc.	Off the Shelf with Configuration					N/A	The business rules required for data transformation can be configured in Masterworks as per the Agency's requirements.
C-020	Enterprise Application Integration	Provide ability to link software solution business process flows with business process flows in other state and WVDOT applications to support automating a business transaction which crosses application systems (for example, linking a workflow with an ERP workflow such as payments to outside entities).	Customization	Medium				N/A	More information is needed to understand this requirement fully. The Aurigo Team will work with the Agency's SMEs to define how the business process flows will need to interact. Custom integrations will be required to meet this requirement.
C-021	Data Integration	Provide capability for bulk data uploads/imports from CSV or through API calls.	Customization	Small				N/A	Aurigo Masterworks Cloud can import data from Excel, CSV, XML, and other types of files. Data uploads/imports using API calls will require the development of custom integrations.
C-022	Data Integration	Support multiple data-transfer methods such as XML, JSON, CSV and flat files (e.g. ASCII, variable and/or fixed length, comma-delimited, etc.)	Customization	Small				N/A	Aurigo Masterworks Cloud can import data from Excel, CSV, XML, and other types of files and can be customized as per the Agency's requirements.
C-023	Data Integration	Provide capability of exposing business objects and processes as Web services through robust technical frameworks such as RESTful JSON microservices. Web services, APIs, etc., must maintain the same referential integrity as batch and on-line user transactions. This should include Application Programming Interfaces (API) and API programming documentation containing proper use (such as related RESTful commands) and valid parameters and parameter values that may be utilized, along with expected return data structure and example(s) (XML, JSON, etc...). As a substitute to the latter, in lieu of providing an API with documentation (or additionally), provide access directly to the database, tables, and columns with documentation of database table structure, table purpose, and associated ER diagrams.	Customization	Small				N/A	Masterworks' business objects and processes can be securely exposed using RESTful web services and APIs. Documentation for their proper use can be provided.
C-024	Data Integration	Support data encryption where appropriate based on user-defined business rules following Advanced Encryption Standards (AES) for data both in transit and at rest in all file structures.	Off the Shelf					N/A	Masterworks uses FIPS 140-2 compliant encryption for data at rest and data in transit.
C-025	Data Integration	Encrypt any data with personally identifiable information in transit and at rest in all file structures.	Off the Shelf					N/A	Masterworks uses FIPS 140-2 compliant encryption for data at rest and in transit. Masterworks has not been designed to process PII, but it can securely encrypt any data stored or transmitted by the application.
C-026	Data Integration	Provide capability for data in the software solution to be extensible to authorized users from both an exposure and consumption standpoint.	Customization	Medium				N/A	More information is needed to understand this requirement fully. The Aurigo Team will work with the Agency's SMEs to define how the Agency wants to make the data in Masterworks extensible to authorized users. Custom integrations may be required to meet this requirement.
C-027	Data Integration	Provide capability to execute interfaces with other systems on a pre-defined schedule or on the request of an authorized user.	Customization	Small				N/A	Masterworks is highly integration friendly. It uses a built-in RESTful API to interface with other systems. Processes can be configured that will initiate scheduled data exchanges with other systems.
C-028	Data Integration	Edit interfaced data by applying the same business rules that are defined for the equivalent transaction entered through the system.	Customization	Small				N/A	Business rules can be included in customized integrations as per the Agency's requirements.
C-029	Data Integration	Generate an error report for any validation issues or other errors identified during execution of a data load or an interface program.	Customization	Medium				N/A	Error reports for any validation issues or other errors identified during the execution of a data load or an interface program can be included in custom integrations.

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IC-030	Data Integration	Display validation errors on-line within a job history function or print in a report format at user option.	Customization	Medium				N/A	Validation errors recorded during system integration or data uploads can be displayed online using a custom-designed job history report. The user will also have the option to print the report.
IC-031	Data Integration	Place records not passing validation into a suspense file or table within the software solution.	Customization	Medium				N/A	This functionality can be included in customized integrations as per the Agency's business requirements. Records that fail validation can be stopped from entering the Masterworks database tables. Invalid data can be ignored or stored in temp tables.
IC-032	Data Integration	Allow correction of suspended records within the software solution.	Customization	Medium				N/A	Forms can be configured to allow authorized users to edit records in temp tables holding records rejected during data transfers. The user can then run a process that attempts to upload the edited records.
IC-033	Data Integration	Provide capability to validate data during both the initial load step and during processing steps.	Customization	Medium				N/A	Validation rules can be included in customized integrations as per the Agency's requirements.
IC-034	Data Integration	Allow the system administrator or other authorized users to browse the suspense file in the system.	Off the Shelf with Configuration					N/A	Forms can be configured to allow authorized users to view temp tables that hold records rejected during data transfers.
IC-035	Data Integration	Provide facilities for verification and batch controls tools to ensure the complete file was received and that the file was not a duplicate.	Customization	Medium				N/A	More information is needed to understand this requirement fully. The Aurigo Team will work with the Agency's SMEs to define how the Agency wants to verify file receipt and duplicate checking. Custom integrations and batch processes will be required to meet this requirement.
IC-036	ETL Tools	Provide data integration and data management tools with a range of extract, transform, and load (ETL) capabilities.	Customization	Medium				N/A	More information is needed to understand this requirement fully. The Aurigo Team will work with the Agency's SMEs to define how the Agency wants Masterworks to provide data integration and data management functionality. There is no direct support for an ETL tool in Masterworks, but Aurigo could potentially use SQL Server Integration Services (SSIS).
IC-037	ETL Tools	Support ability to integrate third-party ETL tools to perform ETL functions.	Customization	Medium				N/A	More information is needed to understand this requirement fully. The Aurigo Team will work with the Agency's SMEs to define how the Agency wants Masterworks to integrate with third-party ETL tools. There is no direct support for an ETL tool in Masterworks, but Aurigo could potentially use SQL Server Integration Services (SSIS).
IC-038	ETL Tools	Utilize scripting or other object-oriented structured languages to define advanced transformation routines/procedures.	Off the Shelf					N/A	Aurigo Masterworks Cloud internally utilizes C#, Javascript, Typescript, and similar scripting and object-oriented structured languages to define business logic functions for advanced transformation routines and procedures.
IC-039	ETL Tools	Provide 'data exchange management' to schedule and monitor inbound and outbound files, notify appropriate contacts in the event of problems, automatically detect duplicate files, and perform other data interchange management functions.	Customization	Medium				N/A	Aurigo can include this functionality in customized System Integrations. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine what 'data exchange management functions are needed.
IC-040	ETL Tools	Validate and handle exceptions during transformation.	Customization	Small				N/A	Aurigo can include this functionality in customized System Integrations. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine how to validate the transformed data and how to handle exceptions.
IC-041	ETL Tools	Verify and maintain referential integrity as part of any transformation process.	Customization	Medium				N/A	Aurigo can include this functionality in customized System Integrations. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine how transformed data can be verified and maintained.

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TEC-042	ETL Tools	Provide the capability to override the default source mapping and use specific SQL statements.	Customization	Medium				N/A	More information is required to understand this requirement fully. Aurigo can potentially use SQL Server Integration Services (SSIS) to perform this function as part of a custom System Integration. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the requirements for overriding the default source mapping.
TEC-043	ETL Tools	Provide ability to map data from multiple source systems and into multiple target source systems.	Customization	Medium				N/A	Aurigo can define complex data mapping in customized System Integrations involving multiple source and target systems.
TEC-044	ETL Tools	Provide ability to schedule and monitor the extraction, cleansing, transformation, and loading processes.	Customization	Medium				N/A	Scripting for scheduling and monitoring extractions, cleansing, transformations, and loading processes can be customized as part of the System Integrations.
TEC-045	ETL Tools	Provide ability to rebuild/reload transactions from a specific date/time forward.	Customization	Medium				N/A	The ability to rebuild/reload transactions from a specific date/time forward must be customized according to the Agency's business requirements. During the elaboration phase of the implementation project, the Aurigo Team will work with the Agency's SMEs to determine the data transaction that may need to be rebuilt or reloaded.
TEC-046	System Tools	Provide report design and generation tools within the system solution.	Off the Shelf with Configuration				Aurigo Masterworks Cloud Plat	N/A	Masterworks comes with an ad-hoc Report Builder that allows authorized users to create new reports and modify existing ones. The Report Builder provides the following benefits: <ul style="list-style-type: none"> • Easy ad-hoc reporting, with a dynamic step-by-step report wizard to assist end-users • Easy-to-configure dashboard widgets • No SQL knowledge is needed to write reports
TEC-047	System Tools	Provide end-user interface design tools within the system solution.	Off the Shelf					N/A	Masterworks Cloud installation. The Aurigo Masterworks Cloud platform is highly configurable, ensuring that all platform capabilities adhere 100% to the Agency's processes and expectations. Using the Toolkit is straightforward. The Agency's designated System Administrators will be trained to effectively use the Toolkit to address changing business requirements and needs. The Toolkit is accessible within Masterworks and does not require a separate administrative environment. Figure : The Masterworks Administration Module Authorized users can easily make configuration changes at any time without requiring any customization to the software code. Masterworks Configuration Toolkit Masterworks Library Users can create and modify libraries of organization-wide information. Library information includes usernames, vendors and contact details, attributes and status, measurement systems and units, standard tables and items, contract item activities, submittal types and requirements, equipment, labor, signature settings, budget and cost codes, etc. The Reporting Engine Users can create/modify reports using either SQL or the Microsoft Report building wizard. The reporting functionality includes creating, editing, and saving report templates.

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TEC-061	Database	Provide utilities which support automatic replication of table updates to multiple databases; provide replication of tables across application instances (test, training, dev, QA, prod, etc.).	Off the Shelf with Configuration						N/A	Aurigo can create multiple environments for the Agency. An additional environment may require additional fees depending on the configuration of the environment. By default, Aurigo will not copy production data to other environments for security reasons. However, if the Agency allows Aurigo to create a highly secure environment with very limited access, Aurigo can write scripts to copy production data to that environment upon getting written approval from the Agency.
TEC-062	Database	Support record-locking at the row level.	Customization	Medium					N/A	This can be configured as part of custom workflow stages or added as custom logic to forms that show record lists.
TEC-063	Database	Support configuration of data attributes by the system administrator.	Off the Shelf						N/A	This is standard functionality in Masterworks solutions.
TEC-064	Database	Provide structured query language (SQL) capabilities for database queries.	Customization	Medium					N/A	This can be customized as per the Agency's requirements. A secondary (mirror) database will need to be set up and maintained to ensure the Agency's SQL usage does not affect the production environment.
TEC-065	Database	Include new data items automatically in migration paths during software upgrades.	Customization	Medium					N/A	This can be customized as per the Agency's requirements.
TEC-066	Reliability	Provide a solution which is architected to enable support for 99.99% availability of the production environment for online inquiry and updates seven days a week (other than for a defined maintenance window and other scheduled outages approved by WV DOT).	Off the Shelf					Aurigo Masterworks Cloud Plat	N/A	Aurigo Masterworks Cloud has been architected to support 99.95% availability, excluding planned downtime. Aurigo can commit to a 99.98% application uptime, excluding planned downtime, for an additional annual fee. Aurigo's price proposal includes this additional cost as part of the Annual Subscription Fee.
TEC-067	Performance	Provide a solution which is architected to support up to 300 concurrent users across all system functions; respondent must be able to provide WV DOT with documented evidence of the ability of its proposed system solution to support these user volumes at the required performance levels as part of the evaluation and selection process.	Off the Shelf						N/A	Aurigo has a dedicated Performance Center of Excellence (PCOE) team, which periodically validates the performance requirements of every Masterworks application release. The performance testing simulates a load above 300 concurrent users. A performance test report showing test results and other monitoring statistics is published before every product release and customer production Go-Live.
TEC-068	Performance	Provide a solution which is architected to fully process a transaction within the application and database environments within one second of receipt of the transaction 75% of the time and all transactions within five seconds for 300 concurrent users.	Off the Shelf						N/A	Seventy-five percent of the time, Masterworks can fully process a transaction in the application and database environments within 5 seconds of receipt of the transaction. All transactions can be fully processed within eight seconds in environments where there are three hundred concurrent users.
TEC-069	Performance	Provide a solution which is architected to support best practice load-balancing techniques.	Off the Shelf						N/A	Aurigo uses standard load balancing techniques and technologies to maintain the Masterworks environments for its customers as per industry best practices.
TEC-070	Performance	Ensure that batch processing does not adversely impact on-line responsiveness or availability.	Off the Shelf						N/A	This is standard functionality in Masterworks application environments.
TEC-071	Performance	Provide a solution architected to support implementation of application controlled parallel batch processing.	Off the Shelf						N/A	This is standard functionality in Masterworks application environments.
TEC-072	Performance	Provide support for user session isolation such that a failure in one session has no impact on other user sessions.	Off the Shelf						N/A	This is standard functionality in Masterworks application environments.
TEC-073	Performance	Provide a solution architected to support access to data for pre-defined reports, ad-hoc queries, and business intelligence without impacting online transaction performance.	Off the Shelf						N/A	This is standard functionality in Masterworks solutions.
TEC-074	Performance	Support utilization of industry leading third-party performance monitoring tools for real-time monitoring by administrators of response time, system use and capacity, concurrent users, and system errors.	Off the Shelf						N/A	Aurigo provides Masterworks as a Cloud-based SaaS solution. Aurigo will provide all performance monitoring of the Agency's Right of Way Management System as part of the hosting services. Aurigo uses New Relic and AWS Cloudwatch for monitoring.

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TEC-075	Performance	Support utilization of industry leading third-party performance testing tools with proposed software solution to verify compliance with performance requirements.	Off the Shelf				N/A	Aurigo uses JMeter for performance testing and Selenium for automated performance testing.
TEC-076	Performance	Provide ability to integrate with DBMS tools which allow the database administrator or authorized user to tune the system for performance.	Off the Shelf				N/A	Aurigo's database administrators can use the required tools for system performance tuning. Database performance tuning is included in the hosting services provided by Aurigo. The Agency's IT Department and System Administrators will not have access to the Masterworks database.
TEC-077	Performance	Provide for an automatic timeout for ad hoc queries (e.g., 10 minutes) configurable by the system administrator.	Off the Shelf				N/A	This is standard functionality in Masterworks solutions.
TEC-078	Business Continuity	Provide an architecture which supports fail-over to a parallel load-balanced environment on a real-time basis.	Off the Shelf				N/A	This is standard functionality in the production environments Aurigo maintains for its customers.
TEC-079	Business Continuity	Provide a system design architected to ensure that normal system operations are restored within four hours of a catastrophic disruption of a production system component 99% of the time.	Off the Shelf				N/A	Aurigo can restore normal system operations within four hours of a catastrophic disruption of a production system 99% of the time. The actual committed RTO depends on the support plan the Agency purchases. Aurigo's Business Continuity Management Plans are ISO22301:2019 certified.
TEC-080	Business Continuity	Provide the capability to perform full backups, incremental backups, and recovery capabilities for data and application components. Back-ups shall not require maintenance windows; backups shall be able to function in the background of a production SOA or clustered environment and not impact system availability.	Off the Shelf				N/A	fully complies with NIST 800-53 standards. Aurigo follows all NIST 800-53 standards for backup/recovery, data retention, and disaster recovery. Aurigo's backup procedures and practices incorporate all the practices related to business recovery, including the software and support services. Aurigo's procedures include backing up its corporate environment separate from the online services Aurigo provides to its clients for security purposes. Aurigo's backup procedures ensure that backups are kept both onsite and offsite for recovery purposes. In addition, Aurigo utilizes Microsoft's Team Foundation Server to store all service artifacts, including design documents, customizations, configurations, etc. As part of Aurigo's standard backup and recovery procedures, the Team Foundation Server tool databases are backed up as per Aurigo's policies outlined in the business continuity and disaster recovery plans. The frequency of data backups is based upon availability requirements, as defined by the business case for the system. Storage of backups is in a secure off-site facility, and system restoration procedures are tested regularly. Adequate backup facilities are provided to ensure that all essential business information and software can be recovered following a disaster or media failure. Backup arrangements for individual systems are regularly tested to ensure that they meet the requirements of business continuity plans. Backup activities do not require maintenance windows and will function in the background without impacting system
TEC-081	Business Continuity	Provide a system design which supports the capability to provide disaster recovery at an off-site location.	Off the Shelf				N/A	Aurigo uses the AWS North Virginia (us-east-1) region as the primary data center. Aurigo has regular backups stored in the AWS Oregon (us-west-2) region. Aurigo can restore from the backups in Oregon if there is a disaster in the Virginia region. Aurigo's Disaster Recovery plan is ISO22301:2019 certified.
TEC-082	Business Continuity	Allow for maintenance of a current back-up of the system solution including application data and system tables and configurations to be utilized for restoration in the event of catastrophic failure and loss of data.	Off the Shelf				N/A	Aurigo uses the AWS North Virginia (us-east-1) region as the primary data center. In addition to storing regular backups in the AWS Oregon (us-west-2) region data center, backups are stored on servers located in separate buildings within the Virginia region data center. Aurigo can restore from the backups in the Virginia region if there is a catastrophic failure of a server in the Virginia region. Aurigo's Disaster Recovery plan is ISO22301:2019 certified.

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TEC-083	Supportability	Construct using current but mature industry-standard application development tools, techniques and standards that can be maintained for the expected life of the system.	Off the Shelf					N/A	Aurigo uses a mature industry-standard Software Development Lifecycle methodology to configure and customize solutions for its customers.
TEC-084	Supportability	Allow at a minimum for configuration across multiple environments including production, patch, user acceptance test, system test, user training, development and sand box.	Off the Shelf					N/A	Starting with the configuration phase of the implementation project, Aurigo will create the following environments for configuration activities and testing: Development Quality Assurance System Integration Testing User Acceptance Testing Pre-Production (Sandbox) At the end of the configuration phase and before Go-Live, Aurigo will create a training environment. Aurigo's trainers will use the training environment to train the Agency's System Administrators and Internal system trainers (ITT training). The training environment will be kept in place after Go-Live so that the Agency's trainers have a place to train the Agency's remaining users. Before Go-Live, the production environment is created and prepared for Agency end-user access. The configured Right of Way Management System will be installed in the production environment, historical data is migrated, and system integrations will be put into place. After Go-Live, the Development, Quality Assurance, System Integration Testing, and User Acceptance Testing environments are normally removed. The Agency will be charged a yearly fee to maintain a Sandbox environment after Go-Live.
TEC-085	Supportability	Provide production support for the last two major releases of the proposed software solution.	Off the Shelf					N/A	Aurigo provides support for the current and last two major releases of Masterworks. This will allow the Agency to run an older version while preparing to upgrade to the latest/newer version of Masterworks. The Agency must upgrade if Aurigo announces the discontinuation of support for an older version the Agency is running.
TEC-086	Networking	Support execution of the proposed software solution over a TCP/IP network with a minimum speed of 10mb/sec.	Off the Shelf					N/A	Aurigo uses AWS as its Cloud Services Provider. Connectivity between servers for internal communication (i.e., Web/App server to Database server and similar connections) occurs over networks with speeds above 1 Gbps.
TEC-087	Networking	Identify access requirements through firewalls and follow standard port designations, where possible.	Off the Shelf					N/A	Aurigo makes use of the AWS Security Groups to allow network traffic only on required ports. For example, web traffic comes through port 443, and SQL traffic comes through port 1433.
TEC-088	Custom Development	Ensure any program code provided by the systems integrator or any of its software providers within the proposed system solution passes industry standard vulnerability checks prior to promotion into the WVDOT environment.	Off the Shelf					N/A	Aurigo's standard process as part of its Software Development Lifecycle to ensure the Masterworks program code passes industry-standard vulnerability checks before it is used for the Agency's Right of Way Management System.
TEC-089	Custom Development	Allow authorized technical staff to create new tables.	Off the Shelf with Configuration					N/A	Aurigo Masterworks' Form Builder will allow the Agency to create forms that dynamically create new tables. The user can specify the table nomenclature. The Agency will not have the ability to create tables directly.
TEC-090	Custom Development	Allow authorized technical staff to create new fields.	Off the Shelf with Configuration					N/A	The Form Builder in the Masterworks Configuration Toolkit will allow authorized users to create fields and field definitions on forms.
TEC-091	Custom Development	Allow authorized technical staff to create new objects.	Does Not Meet					N/A	Aurigo's software engineers will develop all customized objects and functions for the Agency's Right of Way Management System. The Agency will not be provided with access to the Masterworks source code to make objects or functions.

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TEC-092	Custom Development	Allow authorized technical staff to change field structure.	Off the Shelf with Configuration					N/A	The Form Builder in the Masterworks Configuration Toolkit will allow authorized users to modify fields and field definitions on forms.
TEC-093	Custom Development	Allow for identification/reporting of new user-defined tables.	Off the Shelf with Configuration					N/A	Aurigo Masterworks' Form Builder will allow the Agency to create forms that dynamically create new tables. The user can specify the table nomenclature. The Agency will not have the ability to create tables directly.
TEC-094	Custom Development	Allow for identification/reporting of new user-defined fields.	Off the Shelf with Configuration					N/A	Aurigo Masterworks' Form Builder will allow the Agency to create forms that dynamically create new tables. The user can specify the table nomenclature. The Agency will not have the ability to create tables directly.
TEC-095	Custom Development	Allow for identification/reporting of new user-defined objects.	Does Not Meet					N/A	Aurigo's software engineers will develop all customized objects and functions for the Agency's Right of Way Management System. The Agency will not be provided with access to the Masterworks source code to make objects or functions.
TEC-096	Custom Development	Support inclusion of any user-defined or developed objects (user-defined tables, fields, and other objects, etc.) in the upgrade path.	Off the Shelf with Configuration					N/A	Any changes required to support the inclusion of Agency-defined or developed objects (user-defined tables, fields, and other objects, etc.) when Masterworks is upgraded will be included in the planning and execution of the upgrade. Agency-defined objects will not be affected by minor updates.
TEC-097	Job Scheduling and Processing	Provide a central enterprise job scheduler which can schedule jobs (across platforms and across multiple servers within a platform).	Does Not Meet					N/A	Masterworks uses different schedulers (Windows, SQL, custom, etc.) based on the business requirements. Aurigo does not have a universal scheduler that can be applied for any requirement.
TEC-098	Job Scheduling and Processing	Integrate with a software scheduler to provide job scheduling functionality for the system solution.	Customization	Medium			Aurigo Masterworks Cloud Plat	N/A	Masterworks can be integrated with third-party job schedulers to run batch operation activities.
TEC-099	Job Scheduling and Processing	Provide capability to design/manage a batch job stream with multiple dependencies.	Customization	Medium			Aurigo Masterworks Cloud Plat	N/A	Scripting can be customized to manage job streams with multiple dependencies.
TEC-100	Job Scheduling and Processing	Provide capability to notify designated users via email or text based on job and job completion status. The user shall be able to tailor whether or not they see a notification based on statuses such as Completed, Completed with Errors, Incomplete, Failed, Not run. For example, a user may elect to not see any notifications for Completed jobs, just the exceptions like Errors, Incomplete, Failed, etc.	Customization	Medium			Aurigo Masterworks Cloud Plat	N/A	Workflows can be configured by the Agency to notify designated users via email or in-app messaging when a job status changes. The "My Tasks" form that each user sees when they log into Masterworks must be customized to allow the user to choose what messages they want to see or want to ignore based on statuses such as Completed, Completed with Errors, Incomplete, Failed, and Not Run.
TEC-101	Job Scheduling and Processing	Provide capability to utilize job scheduling tools to automate administrative tasks such as database backups or regular report production.	Off the Shelf				Aurigo Masterworks Cloud Plat	N/A	Aurigo performs automated database backups as part of its hosting services. Agency System Administrators can automate the running of a report by setting up a schedule.
TEC-102	Job Scheduling and Processing	Provide ability to establish job dependencies and control subsequent job execution based on user-defined condition codes.	Customization	Medium			Aurigo Masterworks Cloud Plat	N/A	Job dependency logic can be added to scripts that will control subsequent job execution based on Agency defined condition codes.
TEC-103	Job Scheduling and Processing	Allow authorized users to control priority of the batch processes.	Customization	Small				N/A	The ability for authorized users to control the priority of batch processes can be configured.
TEC-104	Job Scheduling and Processing	Allow authorized users to control job start times.	Off the Shelf with Configuration					N/A	The ability for authorized users to control job start times can be configured.
TEC-105	Job Scheduling and Processing	Provide an audit trail of job execution at a minimum noting the job's name, start time, end time, and status.	Customization	Medium				N/A	Aurigo can customize a table in Masterworks to hold job execution information. Reports can be configured to show the job execution information for audit trail purposes.
TEC-106	Job Scheduling and Processing	Allow authorized user to modify job status (e.g., changing status of a job to "Complete", etc.).	Off the Shelf with Configuration					N/A	The ability for authorized users to modify job status can be configured.

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TEC-107	Job Scheduling and Processing	Provide capability to establish job groups.	Customization	Medium				N/A	More information is needed to understand this requirement fully. Aurigo can configure a form to allow the Agency to maintain job group information in the Masterworks Library. Scripts can be customized that will run jobs in a job group in sequence or parallel.
TEC-108	Job Scheduling and Processing	Provide capability to re-start a multi-step job from a user-defined point/step.	Customization	Medium				N/A	Most jobs can be retried a set number of times automatically or manually by an authorized user. Jobs are restarted from the beginning, and there is no ability to restart a job at a specific step.
TEC-109	Job Scheduling and Processing	Allow authorized users to control job by transaction type.	Off the Shelf with Configuration					N/A	Users can be authorized to control jobs by transaction type by assigning them specific user roles and permissions.
TEC-110	Job Scheduling and Processing	Produce a log of job results and append to this log if the job re-runs.	Customization	Small				N/A	Aurigo can customize a job log table that will be used for job results.
TEC-111	Job Scheduling and Processing	Provide the capability to establish and maintain user-defined calendars of scheduled jobs.	Customization	Medium				N/A	This functionality can be customized for the Agency.
TEC-112	Job Scheduling and Processing	Provide a suspense file for rejected batch transactions.	Customization	Medium				N/A	Aurigo can configure one or more tables that can be used to hold rejected batch transactions.
TEC-113	Job Scheduling and Processing	Allow an authorized user to delete rejected records from the suspense file.	Customization	Small				N/A	Aurigo can configure one or more forms to allow authorized Agency users access to suspense files. The users can use the forms to delete rejected records from the suspense files so they will not get resubmitted.
TEC-114	Job Scheduling and Processing	Produce daily report of error transactions by system function.	Off the Shelf with Configuration					N/A	Aurigo can configure one or more reports that will list records with errors found in the suspended transactions tables. The Agency's System Administrators can schedule the reports to run at regular intervals and distribute the output to identified end-users.
TEC-115	Job Scheduling and Processing	Provide ability for an authorized user to edit a transaction in error and resubmit.	Customization	Small				N/A	One or more forms can be configured to give authorized Agency users access to suspense files. The users can use the forms to edit transactions that are in error and then mark the records for resubmittal.
TEC-116	Technical Documentation	Provide comprehensive technical system documentation and technical manuals for the solution system including any third-party add-on modules included in the proposed system solution. Documentation shall include comprehensive technical system documentation and technical manuals for the proposed system including any third-party add-on modules included in the proposed system solution .	Off the Shelf					N/A	The System Administrator Guide and Online Help given to the Agency's System Administrators during training will contain comprehensive technical information about the system. Aurigo will not use any third-party software or modules in the Agency's Right of Way Management System.
TEC-117	Technical Documentation	Include program descriptions in technical system documentation.	Off the Shelf					N/A	Program and process descriptions will be included in the System Administrator Guide, the End-User Guide, and the Online Help.
TEC-118	Technical Documentation	Include screen definitions and descriptions in technical system documentation.	Off the Shelf					N/A	The End-User Guide, System Administrator Guide, and Online Help will include screen definitions and descriptions.
TEC-119	Technical Documentation	Include database definitions, logical data model, and record layouts in technical system documentation.	Customization	Small				N/A	The Aurigo Project Manager can provide the Agency with a database schema at the end of the Business Process Mapping phase. The database schema document will be for the Agency's information only. The Agency will not be given direct access to the Masterworks database.
TEC-120	Technical Documentation	Include audit trail management documentation in technical system documentation.	Off the Shelf with Configuration				Aurigo Masterworks Cloud Plat	N/A	The System Administrator Guide will include documentation for how the Agency can access the system transaction tables and produce audit trail reports.
TEC-121	Technical Documentation	Include security administration documentation in technical system documentation.	Off the Shelf					N/A	Aurigo Masterworks Cloud is FedRAMP Ready and SOC 2 Type 2 certified. Aurigo's Enterprise Security Policy will be included in the technical documentation provided to the Agency.

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C-122	Technical Documentation	Include installation documentation in technical system documentation.	Does Not Meet					N/A	Aurigo will not provide installation documentation. Masterworks is hosted in the cloud on AWS servers. Aurigo manages the hosting services for the Agency. The Agency will not be installing the solution on its own servers or client systems.
C-123	Technical Documentation	Include performance tuning documentation in technical system documentation.	Does Not Meet					N/A	Aurigo will not provide performance tuning documentation. Masterworks is hosted in the cloud on AWS servers. Aurigo manages the tuning of the solution for the Agency. The Agency will not be responsible for tuning the solution.
C-124	Technical Documentation	Include workflow process and administration documentation in technical system documentation.	Off the Shelf					N/A	Workflow process and administration documentation will be included in the System Administrator guide provided during system administrator training.
C-125	Technical Documentation	Include disaster recovery procedures in technical system documentation.	Off the Shelf					N/A	Aurigo's Business Continuity and Disaster Recovery documentation is ISO22301:2019 certified. Third-party certification is attached. Aurigo can provide the Agency with a complete copy of its Business Continuity and Disaster Recovery procedures under NDA or after the contract has been signed. Also attached is the first few pages of Aurigo's Business Continuity and Disaster Recovery Plan. It shows the document's Table of Contents and what is contained in the full plan document.