



WisDOT Construction Management



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1 Introduction

The purpose of this plan will define the high level requirements and implementation approach Aurigo will use to deliver the Construction Management module to the Wisconsin Department of transportation (WisDOT). It will also define the project team and schedule for implementation of this work to enhance Masterworks system to include needed functionality. The outline is preliminary in nature and will be refined using Aurigo’s iterative requirements management and delivery approach called Aurigo Connected Methods (ACM).

The project will provide Aurigo incremental discovery sessions with WisDOT for business requirements. Further, Aurigo will deliver iterative releases of the solution to garner feedback to be incorporated into future iterations. Aurigo will create the Construction Management module as a separately loadable component that can be added to WisDOT’s production environment at the appropriate time.

This plan describes:

1. WisDOT’s high level objective and scope
2. Project implementation team and business liaisons
3. Masterworks modules and features implemented to meet WisDOT’s scope
4. The Implementation Process
5. The requirements on WisDOT personnel to complete the specified work

The following Aurigo Masterworks modules are included for implementation needs:

1. Project Management Module
2. Bid and Estimating Module
3. Document Control

1.1 Project Team and Business Liaisons

Project Development	Business Liaisons
Tammy Hodgson – Project Leader	Patti Oemig - SEF
Dan Meinen – Project Manager	Justin Kutka – SEF Mortenson
Sharon Bremser –Contract Manager	Nahid Afsari – SWR Cotter
Dave Castleberg – Design and Construction Automation and Publishing Supervisor	Todd Van Fossen - SWR
Josh Moriarty – Aurigo Project Manager	Amanda McNichols – NER - AECOM
Harini Anil – Aurigo	Geoff Williams - NER
	Jill Fehrman- BPD
	Travis Buros - SWR
	Brenda Veaser - NER

Other business liaisons will be asked to assist as needed.

2 Project Scope

The scope of the work (SOW) is broken into the following headings. The headings are solely to provide organization to the scope. The scope is intended to be an integration of all of the components contained within the headings.

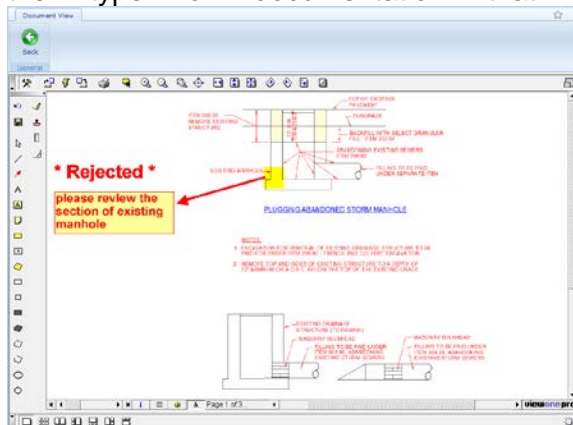
2.1 WisDOT's High Level Objectives

Construction Management is a document management, job cost, and field controls solution. The state's implementation is designed to keep construction projects on schedule and on budget through tracking project documentation and integrated program management. It provides a repository for all documentation pertaining to the bid, design and construction phases of highway projects which comprise long-running, multi-year programs. It implements the business requirement for control and tracking of all documentation relating to the projects, issues, risks and cost. At the end of a highway project, the data is compressed and held on the project server for at least the life of the program (up to 50 years).

Currently there are approximately 200 end users of throughout the state, with the heaviest concentration of users in the South East and North East Regions. Construction Management will be scalable and provide a standardized solution for all highway project management, across the entire highway lifecycle from planning through design and construction.

2.2 WisDOT's High Level Scope

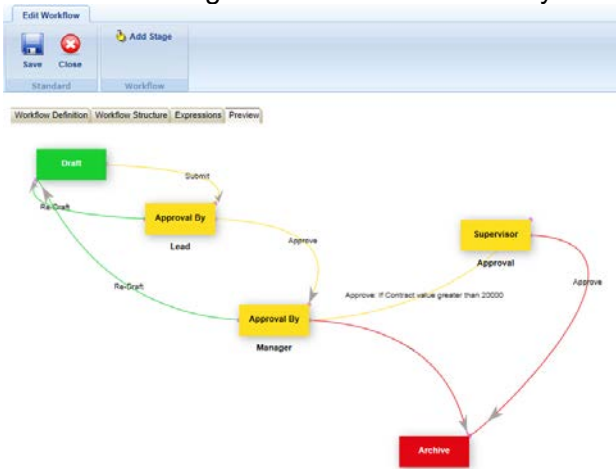
1. **Construction Contract Development** - In conjunction with AASHTOWare Project, develop the contract document that will assemble highway proposal including bid items, standard provisions, special provisions, and approval work flow from WisDOT and contractor.
2. **Document Management** – Store and manage a large variety of records related to a highway project during its Bid, Design and Construction, Closeout, Maintenance, Open Records Phases. Documents associated with the proposed solution may include contracts, submittal forms, emails, fax communications, wire transmittals, letters, design graphics, telephone records and punch lists. This is not an exhaustive list, but illustrates the type of documentation that must be handled by the system.



3. **Issues Tracking** – Maintain a project issues tracking log. Highway project issues are

items of concern being managed by the project team with specific sequential actions required to mitigate a least impactful resolution

4. **Risk Tracking** – Maintain a project risk log. Risks are items of concern that are outside the direct control of the Project Team but are being MONITORED to mitigate the impact wherever possible.
5. **Change Management** – Maintain a change order log that can be linked back to associated risks and/or issues.
6. **Financial Tracking** – budgeting and cost estimating (from AASHTOWare), program reporting, project reporting.
7. **Manage Workflows** - Such as the control of submittals, change management, budgeting and scheduling and how review cycles can be defined for the workflow.



8. **Reporting & Dashboards**
 - a. Performance metrics for highway projects
 - b. Performance metrics for highway programs
 - c. Operational status for highway projects
 - d. Operational status for highway programs
 - e. Financial reporting for projects
 - f. Financial reporting for programs
9. **Construction Scheduling** – Critical Path Method construction project scheduling.
10. **Mobil Inspection** – Collecting information in field for integration with system.
11. **Integrations**
 - a. AASHTOWare to Masterworks
 - b. CARS
 - c. PMP
 - d. PeopleSoft
 - e. BidExpress
 - f. Contract Management

12. Data Migrations

- a. To be determined – approximately 5 projects

2.3 Overall Masterworks Feature Configuration

The Project, Contract and Documentation modules will be configured as a loadable modules on the Masterworks platform already being deployed at WisDOT. As part of this proposal Aurigo will perform the following services on the base platform to enable the modules.

1. Configure any library and master tables to enable the modules
2. Configuration of up to 20 management reports.
3. Configuration of Workflows to support processes specified in Item 4
4. Configure the following sub modules
 - a. Project Budget
 - b. Contract
 - c. Risk Register
 - d. Document Controls
 - e. Bid Estimation and Award
 - i. Engineers Estimate Creation
 - ii. Special Provisions
 - f. Contract Establishment
 - i. Contract Items
 - ii. Contract Document Creation using Mail Merge Template
 - iii. Electronic Document Approval and archive
 - g. Submittals and Transmittals
 - h. Change Management
 - i. Change Orders
 - ii. Potential Change Orders
 - iii. Request for Information
5. Configure User Roles and security parameters to meet WisDOT's security requirements.
6. Configure up to 15 forms of the base product
7. Create Training collateral to help WisDOT with training activities
8. Perform Core Team training on delivered solution

2.4 Excluded Functions

In addition, the following list of sub-modules are part of modules Project Management, Bid and Estimating, and Document Control but are not required to meet WisDOT's requirements for Construction Management, therefore they will not be configured.

- a. Bid Estimation and Award
 - i. Bid Letting Configuration
 - ii. Bid Publishing
 - iii. Bid Tabulation
 - iv. Bid Award
- b. Mobile Field Reporting
 - i. Daily Reporting
 - ii. Item Quantity Tracking
- c. Project Financials

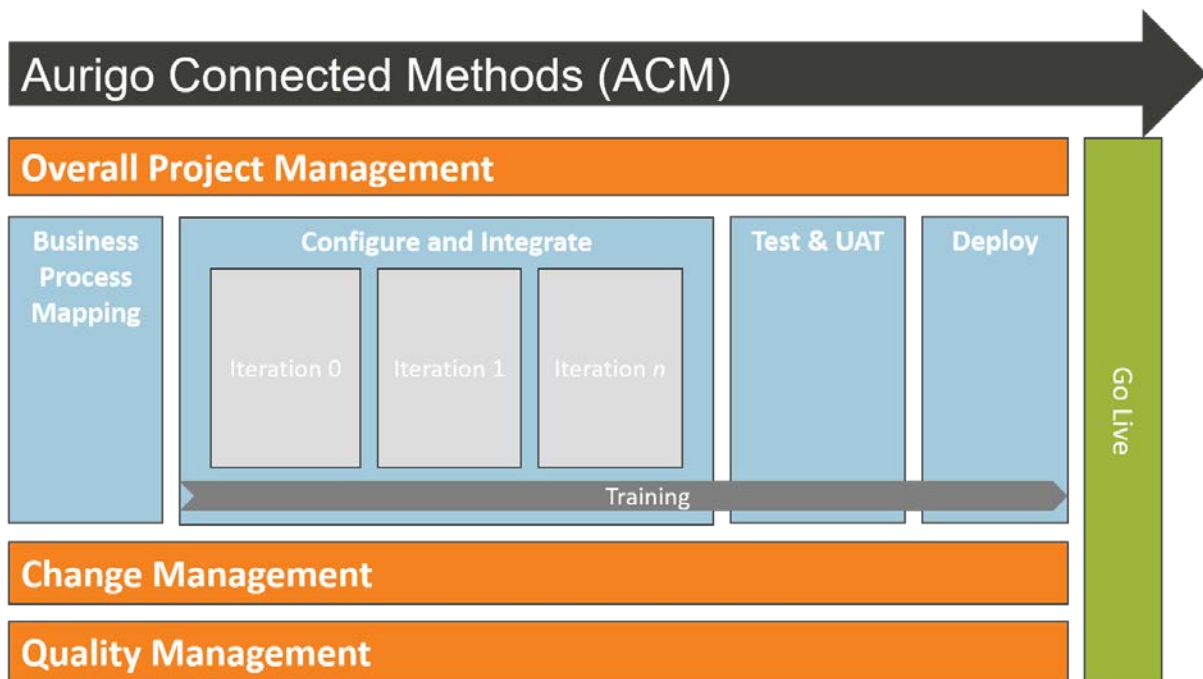
- i. Purchase Orders
- ii. Expenses
- iii. Materials on Hand
- iv. Pay Estimates

3 Implementation Plan

Aurigo follows a tried and tested methodology called the Aurigo Connected Methods when delivering projects to its customers. ACM defines a consistent industry leading process for delivering successful enterprise software deployments.

ACM defines the following phases for a successful Deployment:

Task	Description
Business Process Study	Requirements Gathering & Preparation of SOW (Scope of Work) Document.
Solution Implementation	Configuration and Setup, performed iteratively
Iterative Releases	Iterative release for limited user group with some training. Agile process.
Continual Quality	Quality throughout the delivery process, and not after the fact.
Continual Training	Iterative Training with every release, followed by end user training



3.1 Preliminary Project Schedule

Task Name	Start	Finish
Phase 2 - Construction Management	Mon 9/12/16	Mon 7/31/17
WisDOT Internal Project Planning	Mon 9/12/16	Fri 9/30/16
Develop WisDOT Team and High Level Business Requirements	Mon 10/3/16	Fri 12/23/16
Business Process Discovery and Statement of Deliverables	Mon 12/26/16	Fri 2/24/17
Configuration and Reviews	Mon 1/16/17	Mon 7/3/17
System Integrations	Mon 2/27/17	Fri 6/30/17
Data Migration	Mon 2/27/17	Fri 6/30/17
System User Guide Documentation	Mon 6/5/17	Fri 6/30/17
User Acceptance Testing (July 3rd)	Tue 7/4/17	Mon 7/10/17
Training	Tue 7/11/17	Mon 7/17/17
Go-Live	Tue 7/18/17	Mon 7/24/17
Project Closeout	Tue 7/25/17	Mon 7/31/17

4 Detailed Project Phases

As described in Section 2 of this proposal, Aurigo follows a well-defined process when delivering solutions for each customer. This section provides a detailed description of each of the solution

4.1 Business Process Study (BPS) Phase

During this phase of the project Aurigo will analyze the current system deployment as it pertains to the Masterworks product. The purpose of this analysis is to understand the overall business process of the current deployment and map the solution to the existing workflows and processes automated by Aurigo Masterworks.

This phase does not end the discovery process, rather it begins it. Each iteration will have a short discovery cycle incorporated to do incremental discovery of requirements.

4.2 Solution Implementation Phase

The Solution Implementation Phase is intended to customize Masterworks to address the features / configurations mentioned in the section 2.1 and configure Masterworks for the workflows that are identified by Aurigo and documented in the SOW provided to WisDOT. During this step,

Aurigo will develop / configure the software required to meet the needs and processes documented in the SOW that had been previously approved by WISDOT.

This phase overall phase is further broken down into iterations. Each iteration will last approximately 2 weeks, and will incrementally deliver functionality for WISDOT review and approval. At the end of all of the iterations, the system will have been fully configured and ready for final User Acceptance Testing, Piloting, and final Go Live. Aurigo and WISDOT will meet regularly to discuss the status of the project.

4.3 Pilot Deployment

Upon completion of the Solution Implementation Phase, Aurigo will deploy the Masterworks application for the pilot solution for WISDOT in the SaaS environment hosting the WISDOT production environment. Aurigo will be available to answer any questions regarding the deployed solution, and provide rapid turnaround for any issues discovered by WISDOT.

4.4 Solution Acceptance Phase

Once the Pilot Deployment phase has begun the Solution Acceptance phase begins in parallel. WISDOT will be responsible for managing the overall solution acceptance phase. Aurigo will provide WISDOT with support during this phase of the project. WISDOT is required to submit at least one list of issues to Aurigo during the Solution Acceptance Phase, otherwise the software will be deemed accepted. WISDOT will endeavor to submit issues promptly allowing Aurigo ample time to correct issues prior to the solution acceptance phase ending. If the solution acceptance phase expires while there are mutually agreed to issues outstanding, the solution acceptance phase will be extended until such time as Aurigo corrects all outstanding items.

4.5 Training

Aurigo will perform 5 business days of training in a classroom environment for train the trainer sessions tailored to meet the requirements documented. The training will be suitable for up to 20 users of the overall solution.