



## CITY of NOVI CITY COUNCIL

Agenda Item E  
September 10, 2012

**SUBJECT:** Approval to award Novi Enterprise Asset Management System (NEAMS) Phase II implementation services to Power Engineers for a lump sum fee of \$ 38,510, subject to final review and approval as to contract form by the City Manager and City Attorney.

**SUBMITTING DEPARTMENTS:** Department of Public Services and Information Technology

**CITY MANAGER APPROVAL:** 

EXPENDITURE REQUIRED	\$ 38,510
AMOUNT BUDGETED	\$ 39,500
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBERS	210.211.00-986.000 – \$ 19,750 204.204.00-986.000 – \$ 19,750

### BACKGROUND INFORMATION:

The first phase of the Novi Enterprise Asset Management System was approved by the Novi City Council on December 5, 2011 and was successfully completed in May 2012. The City of Novi Department of Public Services and Information Technology Department have leveraged this technology solution to improve the operations and maintenance practices involving the City's water, sewer, and road operations. This asset management strategy will improve the operational efficiency of these systems by reducing operating and capital replacement costs and improving customer service by managing public service requests so they can be efficiently received, prioritized, and satisfied. Phase II of this project will extend the system to storm water management and non-motorized (sidewalk, pathway, and trails) system infrastructure.

#### Professional Services Consultant Role & Competitive Request for Proposals (RFP) Solicitation Process

A competitive RFP process was conducted in accordance with the City's purchasing policy for this multiphase project. A team driven, qualification based selection (QBS) evaluation was conducted prior to phase one. Based upon the initial phase's successful completion, City staff recommends awarding phase two to Power Engineers using the same competitively bid rate schedule applied in phase one. This experienced vendor will provide software configuration/implementation services, training, system documentation, and oversee the system's successful deployment to ensure staff take complete ownership of the final solution. Power was the lead consultant for over 25 projects across the nation enabling local communities to fully leverage Cityworks asset management systems. Novi's work processes for storm water and non-motorized infrastructure will be streamlined for essential service delivery functions including: managing service requests, assigning work orders, scheduling mandated preventive maintenance in accordance with MDEQ requirements, retrieving asset maintenance histories, and creating standardized reports for expense summaries and budget development for equipment, labor, and materials.

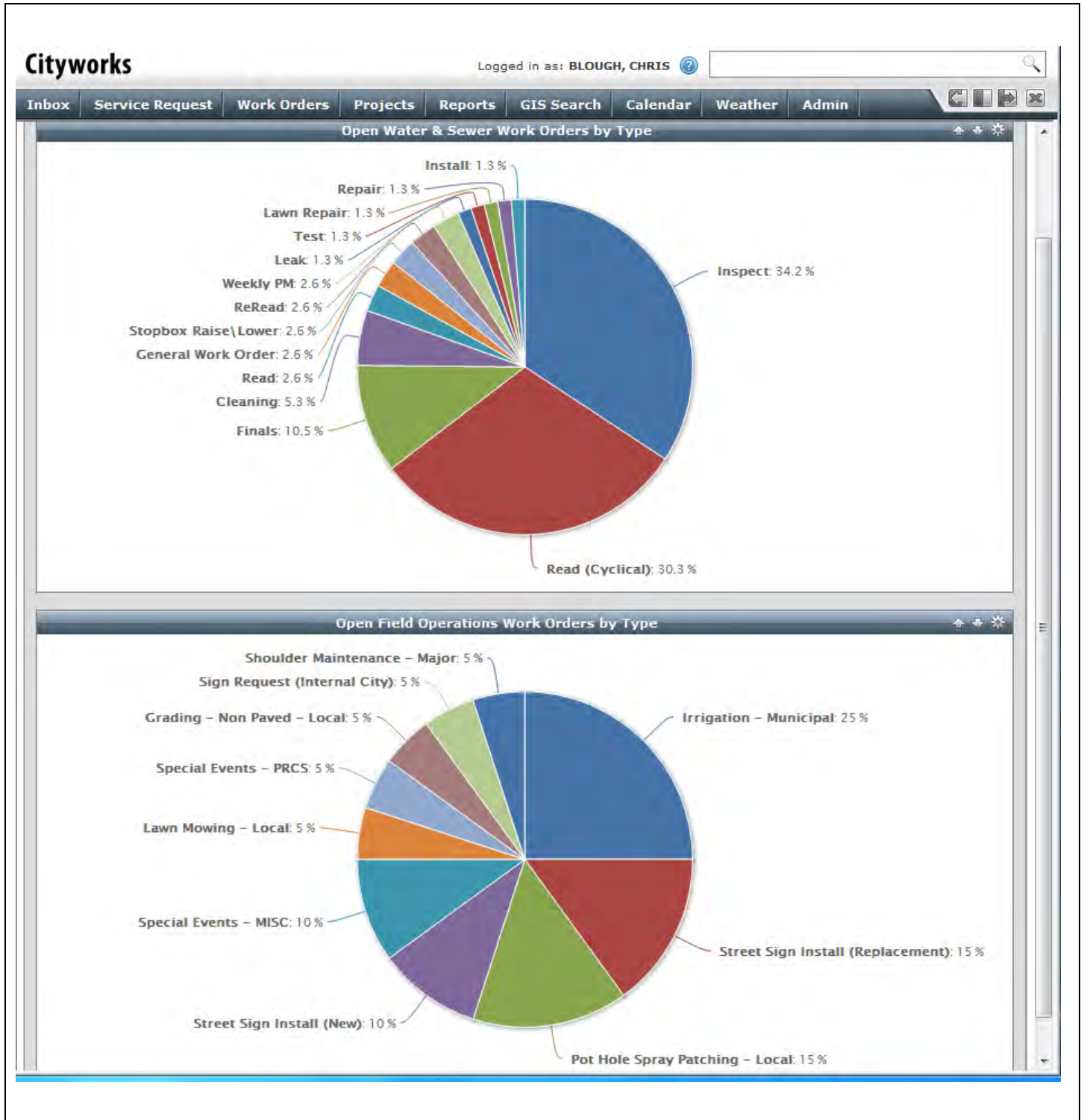
#### NEAMS Advances Our City Council's Goals

The NEAMS asset management program will advance the City Council's goals of improving infrastructure and maintaining a fiscally responsible government. The system is also designed to evolve and mature with the City's growing operational needs as exemplified by the City's growing road and utility infrastructure. In the past 10 years, the City experienced 21.7% increase in water and sewer customers and has expanded its road maintenance responsibilities by 30% or 43 road centerline miles according to Act 51 certification records.

**RECOMMENDED ACTION:** Approval to award Novi Enterprise Asset Management System (NEAMS) Phase II implementation services to Power Engineers for a lump sum fee of \$ 38,510, subject to final review and approval as to contract form by the City Manager and City Attorney.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Wrobel				





Storm Water System Catch Basin Rebuilding Program





Sidewalk Panel Replacements on Cidermill Drive





August 29, 2012

# City of Novi

## AMS for Storm Drain and Non-motorized Assets

Budgetary Scope of Work and Cost Estimate

**POWER Engineers brings the right resources,  
the right tools, the right services —  
TO MEET YOUR SPECIFIC AMS GOALS.**

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A proposal from:



## **BUDGETARY SCOPE OF WORK AND COST ESTIMATE**

### ***INTRODUCTION***

POWER Engineers, Inc. (POWER) is pleased to provide this budgetary quote and detailed Scope of Work to define the methodology, tasks and services needed to expand the City of Novi's Cityworks Asset Management System (AMS) to support the storm drain and non-motorized asset classes. Our proposed methodology has successfully delivered over 30 Cityworks systems. The key to success lies in our ability to partner with our clients and bring together the right services, the right resources and the right tools to deliver a solution that meets each client's specific goals.

### ***DETAILED DESCRIPTIONS OF ANTICIPATED ACTIVITIES***

This work plan consists of:

- Task Outline
- Task Descriptions
- Project Schedule

The Task Outline is a list of all tasks required to support the Cityworks Server Asset Management Solution System Implementation Project.

Following the Task Outline is the main body of the Work Plan – Task Descriptions that define the activities or events that POWER must perform or have accomplished to complete this project efficiently.

The Project Schedule determines the timeline for the deliverables of the project.

### ***A BASIS FOR PROJECT REPORTING***

With this work plan, we can track tasks and deliverables throughout the life of the project. Project status reports and project review checklists as well as other project collaboration tools assist us in communicating and coordinating internally throughout the project.

***THE CITY OF NOVI AND POWER REVIEW***

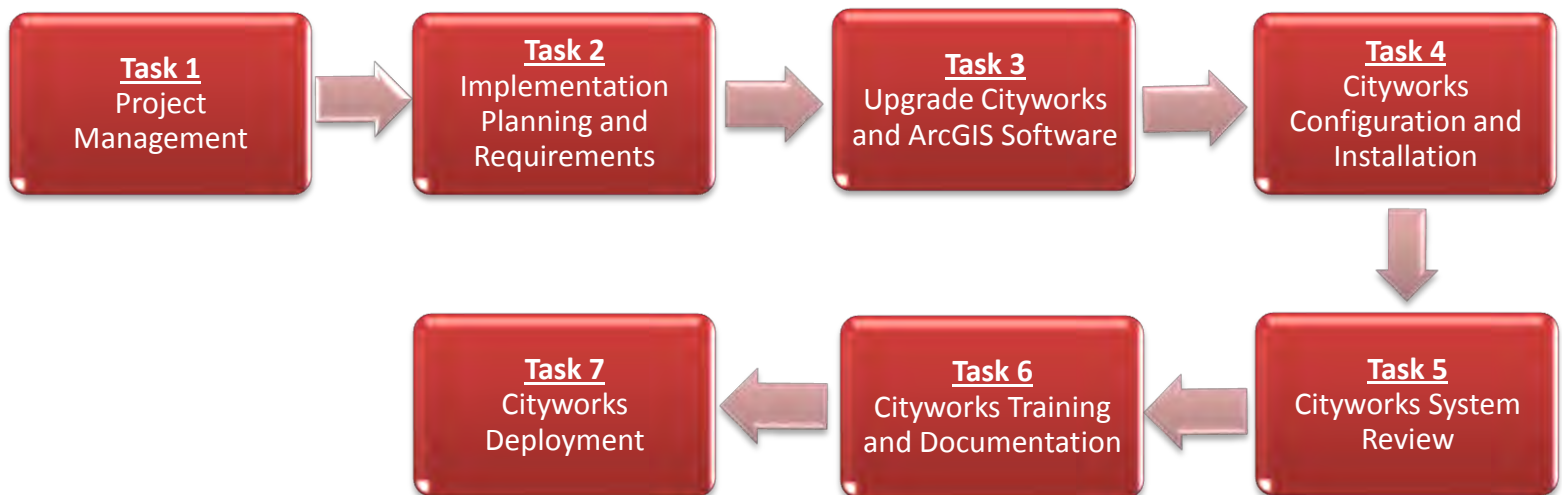
We invite you to review and revise this document with us before the project starts. This joint review will provide optimum coordination among all involved parties as the project progresses.

## ***CITYWORKS DEPLOYMENT***

POWER Engineers has developed a proposed detailed Scope of Work to define the methodology, tasks and services needed to deploy the Cityworks Asset Management System (AMS) at the City of Novi for storm drain and non-motorized asset classes and to upgrade the City's Cityworks Release from 2012 to 2012.1 and upgrade ArcGIS Server from 10.0 to 10.1 (SDE)

The diagram at the bottom of this page shows the series of tasks involved in the implementation of the appropriate Cityworks and GIS components required for the project. Each of the key stages in the project is considered a task series and is required for full deployment. The detailed scope of work is written with references to the assets identified during discussions with City representatives and the durations under each task represent the total duration to complete each task.

Our plan begins with a project kick-off meeting and ends with the City's acceptance of the implemented system. Throughout the process, POWER provides project management to ensure a smooth and orderly implementation. Since the City's input, expertise, and staff are vital to the success of the project, we identify numerous review points within each task series. The implementation and deployment of Cityworks for the City will be successfully delivered by completing the primary activities listed below and will result in an implementation that can evolve as the City expands its requirements for asset management. The approximate level of effort (ALE) for POWER resources, deliverables, City responsibilities, assumptions and risks pertinent to each task are detailed in the following scope of work.





**CITYWORKS DEPLOYMENT SCOPE OF WORK****Task 1 Project Management**

1.1 Project Supervision

**Task 2 Implementation Planning and Requirements**

2.1 Kick-Off Meeting

2.2 Implementation Planning and Requirements Workshops

2.3 Develop System Requirements Documents

**Task 3 Upgrade Cityworks and ArcGIS Software**

3.1 Upgrade and Test Cityworks and ArcGIS Software

**Task 4 Cityworks Configuration and Installation**

4.1 Cityworks Configuration

4.2 Cityworks Configuration QA/QC

4.3 Cityworks Installation

**Task 5 Cityworks System Review**

5.1 Cityworks Configuration Review

5.2 System Update and Redeploy

**Task 6 Cityworks Training and Documentation**

6.1 Training

6.2 Documentation

**Task 7 Cityworks Deployment**

7.1 System Deployment

7.2 System Acceptance Testing



## ***TASK 1***

### ***PROJECT MANAGEMENT***

#### **SUBTASK 1.1 PROJECT SUPERVISION**

**Objective(s):**

- To provide project management and project oversight throughout the course of the Cityworks deployment.

**Responsibility:** POWER and City

**Duration:** 3 Months (ALE for POWER 31 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Rytlahti

Project management will ensure proper communication and scheduling of work between the City and POWER during the project. POWER's project manager will provide project oversight including scheduling and conducting bi-weekly project calls and providing monthly progress reports and project schedule updates to the City. These activities will facilitate communication between POWER and the City's project manager as well as other team members, and ensure that the project schedule and deliverables are met. A project wrap-up conference call will be conducted following acceptance of the system to evaluate the success of the project and to identify the next steps that the City should consider as their Cityworks implementation continues to evolve.

**Deliverables:**

- Preliminary Project Schedule
- Bi-weekly Project Status Calls
- Kick-Off Meeting Agenda
- Monthly Status Reports

**Assumption(s):**

- The City will provide facilities for on-site work including desk, telephone, internet access, and system access as required.
- MS Project 2003/2007 will be used for development of the project schedule.
- Basecamp will be used as the online project collaboration tool. The City will be responsible for Basecamp setup and administration.
- Chris Blough will be the City's Project Manager for this project.

**Client Responsibilities:**

- Assign a project manager to the project that is knowledgeable of the project and business requirements and has general decision-making authority to ensure timely resolution of issues that could impact the project schedule.
- Ensure that the appropriate project stakeholders, IT, representatives and Subject Matter Experts (SMEs) attend the kick-off meeting.



- Provide meeting facilities and coordinate the attendance of the City's project participants for the project meetings.

#### **Risks**

- While the Cityworks product is a proven solution with a significant user base and the proposed methodology has successfully delivered over 30 Cityworks systems including the City of Novi's implementation for water, sanitary sewer, streets and signs, there are potential project risks including:
  1. *Organizational risks* – Is there sufficient commitment to this project, including management, testers, QA, and other external but involved stakeholders?
  2. *Funding risks* – Is the funding in place to successfully complete the project? Has an appropriate level of funding been allocated for training and mentoring?
  3. *People risks* – Does the City have enough people with the required skills and experience available to support the project? Do they believe that the project can succeed? Are user representatives available for reviews? Are domain experts available? Do union issues need to be addressed?
  4. *Time risks* – Is the schedule realistic? Can functionality be scope-managed to meet schedules? How critical is the delivery date? Is there time to "do it right"?
  5. *Scope risks* – Can success be measured? Is there agreement on how to measure success? Are the requirements fairly stable and well understood? Is the project scope firm or does the project scope continue to expand?
  6. *External dependency risk* – Does the project depend on other (parallel) development projects? Is success dependent on off-the-shelf products or externally-developed components? Is success dependent on the successful integration of development tools (design tools, compilers, etc.) or implementation technologies (operating systems, databases, inter-process communication mechanisms, etc.)? Is there a back-up plan for delivering the project without these technologies?
  7. *Schedule Risks* – Experience shows that 85% of the risks have a direct or indirect impact on the schedule, and therefore implicitly on cost. Maybe 5% have only a cost impact. The rest have no direct impact on cost or schedule, but on other factors like project quality.



## ***TASK 2 IMPLEMENTATION PLANNING AND REQUIREMENTS***

### **Objective(s):**

- To document the Cityworks system requirements.

**Responsibility:** POWER and City

**Duration:** 2 Weeks (ALE for POWER 44 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Rytlahti

### **SUBTASK 2.1 KICK-OFF MEETING**

POWER and the City will participate in a project kick-off meeting on-site at the City. Prior to the kick-off meeting, POWER will prepare a preliminary project schedule and meeting agenda. The project kick-off meeting will provide a forum to familiarize project participants with the goals and objectives of the project, review the statement of work and planned deliverables, review the preliminary project schedule and the overall implementation and deployment approach for Cityworks.

### **SUBTASK 2.2 IMPLEMENTATION PLANNING AND REQUIREMENTS**

Following the kick-off meeting, POWER and the City will conduct a series of configuration planning workshops at the City's office. The goal of this activity is to share knowledge about the City's current and future-state work order and service request environment. POWER and the City will conduct a two-day Cityworks requirements workshop. The goal of this activity is to gather necessary work management related information needed to properly configure the Cityworks software for the City's storm drain and non-motorized assets infrastructure.

During these workshops, the City and POWER will also review the geodatabase design of the City's GIS, existing service requests and work orders, sample documents, workflow information, and other data that is currently used to manage its work activities. This information will be used by POWER and the City to design and customize the service request and work order templates and codes necessary for the operation of Cityworks. During this workshop, POWER will use its standard Cityworks configuration document as a road map for collecting the required Cityworks configuration points. POWER has an extensive collection of geodatabase designs, Cityworks data models, work order, service request and report templates, and other Cityworks configuration



artifacts from past projects that can be referenced during the requirements process.

## **SUBTASK 2.3 DEVELOP CITYWORKS CONFIGURATION REQUIREMENTS DOCUMENT**

POWER will develop a Cityworks Configuration Requirements document based upon information discovered during the workshops. This document will address the following configuration requirements:

### **CONFIGURATION REQUIREMENTS**

Users Groups	Work Orders
Service Requests	Project Hierarchy
Cityworks System Standards	Work Order Tasks
Geocoding Services	Reporting
Cityworks Domain Security	Work Order Valid Values
Asset Identifiers	Service Request Valid Values
Print Templates	Employee Hierarchy
Street Names	GIS Data Assessment

This document is augmented with Azteca Cityworks spreadsheets for employees, materials, equipment, labor, project and tasks. Particular attention will be placed on developing the print templates. These documents typically are the main interface between Cityworks and the field users and need to be designed correctly.

#### **Deliverable(s):**

- Kick-Off Meeting Notes
- Revised Project Schedule
- Draft and Final Cityworks Configuration Requirements Document
- Recommendations for GIS data model changes for storm drain and non-motorized asset classes
- 2 Day Onsite Implementation and Planning Workshop

#### **Assumption(s):**

- The City Project Manager will coordinate appropriate Subject Matter Experts (SMEs) and meeting participants for each workshop.
- The City Project Manager will assist POWER's consultant during the implementation planning and requirements workshops by documenting the requirements and assisting with facilitating the workshops.
- The City will deliver existing work order, inventory, GIS and related system documentation to POWER's project manager at least one (1) week prior to the requirements design meeting. This documentation will include the City's existing basic workflows for storm drain and non-motorized assets.

- The City's current work processes are substantially the same as the work documented in the OHM CMMS report and the supplied workflows.

#### **Client Responsibilities:**

- Deliver existing work order and related system documentation.
- Distribute primer information to appropriate meeting participants.
- Participate in and provide meeting facilities for the kick-off meeting and the requirements workshops.
- Coordinate the collection, organization and transfer of requested documentation, data, hard-copy samples and other appropriate information as needed.
- Review and provide written comments on the draft and final Configuration Requirements Document within five (5) business days of delivery.
- If required, update the GIS data model to support the use of Cityworks.
- Implement any recommended GIS data model changes

#### **Risks**

The risks to successfully completing this Task series lie primarily with the availability of the appropriate stakeholders during the discovery meetings and requirements document review; however, several risks similar to those mentioned under the Project Management task also apply and are listed below:

1. *People risks* – Are stakeholders available for the system requirements workshops and to review the draft requirements document? Are subject matter experts available?
2. *Scope risks* – Can the requirements be prioritized to limit scope and schedule creep, and prevent exceeding the City's budget?
3. *Schedule Risks* – Can the requirements workshops be scheduled in a manner that the necessary stakeholders are available during the course of the on-site meetings to avoid scheduling additional trips to meet with absent subject matter experts?





### **TASK 3**

## **UPGRADE BASE CITYWORKS AND ARCGIS SOFTWARE**

#### **Objective(s):**

- Upgrade Novi's Cityworks Release from 2012 to 2012.1
- Upgrade ArcGIS Server from 10.0 to 10.1 (SDE)

**Responsibility:** POWER

**Duration:** 2 Weeks (ALE for POWER 64 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Ryttilahti

### **SUBTASK 3.1 UPGRADE AND TEST BASE SOFTWARE**

POWER will install Cityworks 2012.1 database and software and ArcGIS 10.1 upgrades. POWER will be remotely upgrading the software and testing the system. The software upgrade includes:

- Esri ArcGIS Server 10.1 Standard Enterprise
- Esri ArcSDE 10.1
- Cityworks Server AMS 2012.1
- Cityworks Desktop 2012.1 Software (1 Administration Machine)

Since the City of Novi will be an early adopter of the Cityworks 2012.1 software solution, POWER recommends that this new version be set up in a test environment and thoroughly tested using the City's data and work flows. Once this version has been approved by the City, POWER will proceed with the upgrade of the production system. This upgrade will be completed during a scheduled outage either in the evenings or on a weekend.

Following the installation of the upgraded production software components, POWER will test the system configuration to verify that it's working correctly. Testing will include the query view, copy to caller and asset ID generator customizations. The City will then test the upgraded system and provide confirmation to POWER that the system is working correctly.

#### **Deliverable(s):**

- Cityworks 2012.1 upgrade installation and testing documentation
- ArcGIS Server 10.1 upgrade installation and testing documentation
- Migrate the City's GIS asset data residing in ArcSDE 10 to 10.1

**Assumption(s):**

- POWER will have remote access to the City's equipment to install software upgrades.
- POWER will have the necessary administrative privileges to install software as an administrator and create directories.
- The City will have appropriate software licenses in place in a timely manner.
- POWER will have access to the City's IT staff as needed during the software installation and testing process.

**Client Responsibilities:**

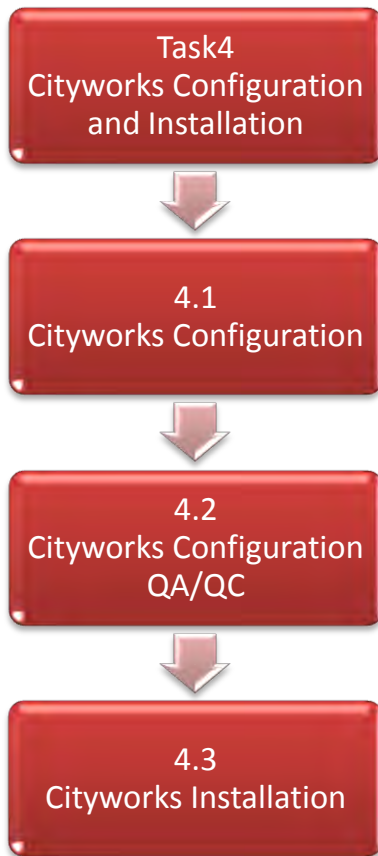
- Provide timely response to questions raised by POWER during the configuration.
- Provide IT staff as needed to support POWER as needed during the software installation and testing process.
- Provide remote access to the City's equipment to install software.
- Provide a Windows 2008 R2 Server for the testing environment.
- Confirm 2012.1 Cityworks system is working correctly before moving to the production system.

**Risks**

The risks to successfully completing this Task series include:

1. *People risks* – Are the appropriate IT and Cityworks stakeholders available to support the software installation?
2. *Budget/Schedule Risks* – Can the City provide remote access for the software installation to avoid the need for an on-site installation trip?





## ***TASK 4 CITYWORKS CONFIGURATION AND INSTALLATION***

### **Objective(s):**

- To configure and install Cityworks software

**Responsibility:** POWER

**Duration:** 2 Weeks (ALE for POWER 48 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Rytlahti

### **SUBTASK 4.1 CITYWORKS CONFIGURATION**

In this series of tasks, POWER will remotely configure Cityworks to the requirements outlined in the Configuration Requirements document. With the information gathered in the requirements meetings, POWER's consultants will configure the Cityworks database. The information entered into the system typically includes employees, materials, equipment, work order templates, reports, problem codes and table codes. POWER will create an internal test environment that resembles the City's environment as part of this task. This approach will allow for testing the configured system in a manner that will produce appropriate results during the final installation.

Since the City is already in production with Cityworks, this configuration will need to be completed on a test system and once approved, be moved to the production system.

### **SUBTASK 4.2 CITYWORKS CONFIGURATION QA/QC**

Upon completing the Cityworks configuration, POWER will execute a test plan against the configured database. Issues related to the configured Cityworks software will be addressed during this task.

### **SUBTASK 4.3 CITYWORKS INSTALLATION**

Upon completing the Cityworks internal QA, POWER will transfer the Cityworks configuration to the Production environment. This transfer of the configuration will be a manual process.

### **Deliverable(s):**

- Configured Cityworks Database in Test Environment
- Configured Cityworks Database in Production Environment
- Import Non-Motorized Asset Feature Class to ArcSDE

**Assumption(s):**

- POWER will have remote access to the City's equipment to install software and data.
- POWER will have the necessary administrative privileges to install software as an administrator and create directories.
- The City will have appropriate software licenses in place in a timely manner.
- POWER will have access to the City's IT staff as needed during the software installation and testing process.
- The City will have GIS data suitable for deployment of Cityworks software.
- POWER will pre-schedule remote access with the City's IT staff for installation and testing.
- POWER will coordinate with the City's PM to pre-schedule support time from the City's IT staff.

**Client Responsibilities:**

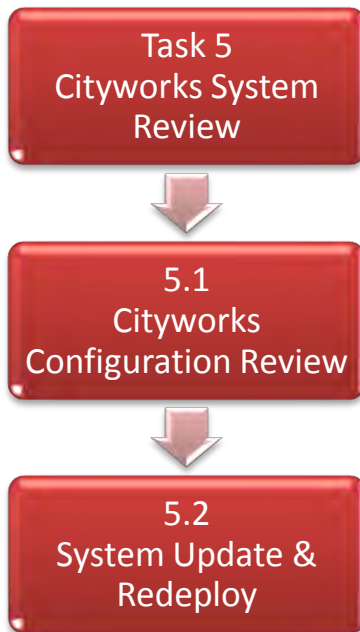
- Provide timely response to questions raised by POWER during the configuration.
- Provide IT staff to support POWER as needed during the software installation and testing process.

**Risks**

The risks to successfully completing this Task series include:

1. *People risks* – Are the appropriate IT and Cityworks stakeholders available to support the software installation?
2. *Budget/Schedule Risks* – Can the City provide remote access for the software installation to eliminate the need for on-site installation that will add cost and time to the project?





## **TASK 5**

### **CITYWORKS SYSTEM REVIEW**

#### **Objective(s):**

- To confirm Cityworks configuration

**Responsibility:** POWER

**Duration:** 1 Week (ALE for POWER 16 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Rytlahti

#### **SUBTASK 5.1 CITYWORKS CONFIGURATION REVIEW**

After completing the Cityworks system configuration, POWER will conduct a remote System Review session with the City using WebEx. During this session, POWER will walk the City through a review of the configured Cityworks system. This initial review will identify necessary changes in the database, templates and reports. The required configuration changes will be documented in an update to the Configuration Requirements document.

#### **SUBTASK 5.2 SYSTEM UPDATE AND REDEPLOY**

Issues identified during the review activities will be rectified prior to final system deployment. POWER will remotely install the updated Cityworks database at the City for additional review.

#### **Deliverable(s):**

- One Day Remote Review Meetings
- Updated Cityworks Configuration Requirements Document

#### **Assumption(s):**

- The City Project Manager will coordinate appropriate City Subject Matter Experts and meeting participants for each workshop.

#### **Client Responsibilities:**

- Participate in and provide meeting facilities for the review workshops.
- Provide review and consolidated comments on the updated requirements document within five business days of receipt.

#### **Risks**

The risks to successfully completing this Task series include:

1. *People risks* – Are the appropriate stakeholders and subject matter experts available for the software configuration review

workshops and to provide timely comments to the updated requirements document?

2. *Budget/Schedule Risks* – Can the system configuration review workshops be scheduled in a manner that the necessary stakeholders are available during the course of the on-site meetings to avoid additional trips to meet with absent subject matter experts?



## **TASK 6**

### **CITYWORKS TRAINING**

#### **Objective(s):**

- To provide Cityworks training services

**Responsibility:** POWER

**Duration:** 2 Weeks (ALE for POWER 18 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Rytlahti

### **SUBTASK 6.1 ON-SITE TRAINING WORKSHOPS**

POWER will provide on-site training for the Cityworks software modules and products procured by the City.

Prior to full system deployment, POWER will develop and provide training workshops that will accommodate up to eight (8) users for each of the training sessions. The following sessions will be provided:

<b>COURSE</b>	<b>DESCRIPTION</b>
<b>Cityworks Refresher Course</b>	Training will be a refresher course to cover creating and processing service requests and work orders in Cityworks 2012.1. Service Request topics include: adding labor, submitting, searching, canceling, closing, combining, geo-locating, and reports, associating to projects and work orders. Users will also learn how to create and process work orders and tasks. Topics include: adding labor, material, and equipment; submitting, searching, canceling, closing work orders.

#### **Deliverable(s):**

- One (1) day of Instructor-Led Training

#### **Assumption(s):**

- The City will provide at least one of its current Cityworks super users to assist POWER's instructor during the one-day training session conducted by POWER.
- End-user training will be refresher training for current City users. If new users are attending the training, the City's super users will provide pre-training on Cityworks prior to the POWER instructor-led refresher training, if necessary.



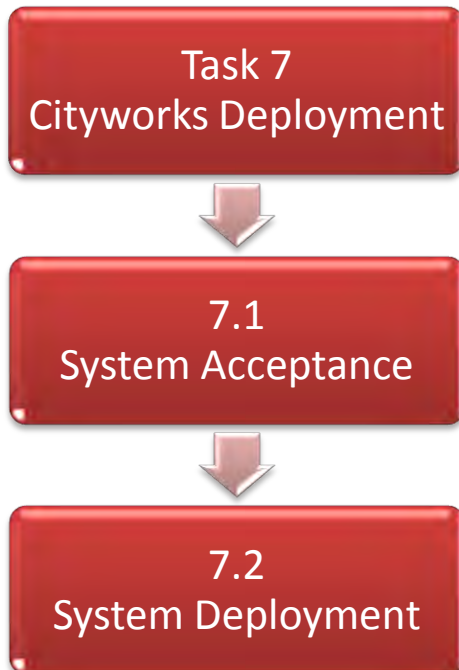
**Client Responsibilities:**

- Provide all student computers with Internet Explorer 8 or 9 along with MS Office 2007 or 2010 installed, used for training.
- Provide the location and set-up (physical space) used for training.
- Ensure that the training area is large enough to accommodate 10 (one from POWER) networked-computers, eight students and two instructors with a table, computer, projector, and supporting materials.
- Ensure that all students participating in training have at a minimum basic PC literacy.

**Risks**

The risks to successfully completing this Task series include:

1. *People risks* – Are the class participants willing and able to learn the software to efficiently perform their daily job responsibilities as well as mentor and support new users as the system is made available to them? Can the training courses be scheduled in a manner that the necessary participants are available to avoid additional trips for training?



## **TASK 7**

### **CITYWORKS DEPLOYMENT**

#### **Objective(s):**

- To develop a test plan for identifying remaining system configuration issues
- Provide a traceable plan that can be used by the City for final system review and acceptance
- To provide system start-up services

**Responsibility:** POWER

**Duration:** 1 Week (ALE for POWER 24 Hours)

**Location:** POWER Office and City's Office

**Resources:** Mark Rytlahti

#### **SUBTASK 7.1 SYSTEM ACCEPTANCE**

Prior to deployment, POWER will conduct a system evaluation and acceptance testing wherein the representatives of each asset group will review the Cityworks system to ensure that the system meets their requirements.

Prior to testing, POWER and the City will develop the System Acceptance Test Plan that outlines the process used for system evaluation. The System Acceptance Test Plan will be based on the configuration requirements document used by POWER for configuration and internal testing. By using the requirements document as the Test Plan foundation, the requirements captured during Task Series 2 and updated during Task Series 5 are traceable to the final system delivery.

POWER and the City will execute the test plan during a one-day remote web meeting. Any issues found during testing, will be logged, researched and the appropriate configuration adjustments made to the system.

#### **Issue Tracking**

Software issues identified during the system deployment and acceptance testing will be tracked in an issues resolution spreadsheet provided by POWER for review and discussion with the City's Project Manager during system acceptance. The City's Basecamp collaboration portal will be used to track the software issues identified during testing. Software issues related to the configuration or installation of the software will be addressed by POWER as part of the project scope. Software issues related to Cityworks "Out-of-the Box" functionality will be submitted to Cityworks for tracking and resolution.

## **SUBTASK 7.2 SYSTEM DEPLOYMENT**

The Cityworks system will be deployed to the end users. The deployment to each asset group will be done individually during the deployment period. This method will allow POWER and City support staff to control the process and provide individual support as needed. This approach also helps identify and resolve any configuration issues and ensures adoption of the system among users, enabling them to get the most from Cityworks. To ensure that the system is being used properly by the City's staff, POWER will be on site during system deployment. POWER will work alongside the staff responsible for each asset group to make sure that they are using the system properly and to identify any common errors that occur across the departments. Remaining configuration issues that were captured during the requirements or system review task series, but not implemented, will be captured in the requirements document and added to the system. New configuration requirements will be discussed with the City's PM and an estimate to implement the changes will be provided upon request.

### **Deliverables:**

- Cityworks Deployment Support (One Day )
- Draft Test Plan
- Test Plan Review Meeting (Web Meeting)
- Final Test Plan
- Remote Test Plan Execution (Web Meeting)
- Final System Requirements Document in editable Word format

### **Assumption(s):**

- POWER will have the appropriate level of access for Cityworks installation.
- The City will provide an adequate level of IT support to ensure that installation, testing and issue resolution are performed in an efficient manner.
- One review and revision cycle will be needed to finalize this test plan.
- Cityworks deployment will occur immediately following onsite end user training.

### **Client Responsibilities:**

- Provide IT support during the Cityworks installation and testing tasks.
- Coordinate departmental participation for the deployment and acceptance testing.
- Ensure that all stakeholders review the Draft Test Plan in advance of the meeting and attend the review meeting.
- Coordinate departmental participation for the project wrap-up meeting.

### **Risks**

The risks to successfully completing this Task series include:



1. *People risks* – Does the end user’s perception of the delivered system substantially match the requirements captured during the system requirements workshops? Are the end users using the system efficiently and adopting the system? Are new requirements that impact user acceptance and usability being identified as the system is being exercised?
2. *Technology Risks* – Is the system performing as expected? If not, are there external systems or factors impacting the system?

### ***PROJECT SCHEDULE***

The project will be completed in four months. The planned project start-up is October 1<sup>st</sup> with planned completion by January 31, 2013.

## ***PROJECT COSTS***

Based upon the above project tasks, POWER has determined the following costs for each task below:

<b>SERVICES</b>	
<b>PROJECT TASKS</b>	<b>COSTS</b>
Task 1: Project Management	\$ 4,495.00
Task 2: Implementation Planning and Requirements	\$ 6,380.00
Task 3: Upgrade Cityworks and ArcGIS Base Software, Installation and Testing	\$ 9,280.00
Task 4: Cityworks Configuration and Installation	\$ 6,960.00
Task 5: Cityworks System Review	\$ 2,320.00
Task 6: Cityworks Training	\$ 2,610.00
Task 7: Cityworks Deployment	\$ 3,480.00
<b>TOTAL SERVICES COST</b>	<b>\$35,525.00</b>
Estimated cost for travel expenses	\$2,985.00
<b>TOTAL PROJECT COST</b>	<b>\$38,510.00</b>

The total cost of the proposal does not include sales tax where applicable. The City is responsible for any taxes, duties, or fees.

Payment will be based upon task completion with 10 percent of the fees withheld pending the City's final acceptance of the project deliverables. Payment is due net 30 days. All change orders will be performed on either a time-and-material or fixed price basis.

**Note:** POWER is extending the rate schedule shown in the table below as contractually agreed upon in the December 5, 2011 contract between POWER Engineers and the City of Novi, MI.

<b>CITYWORKS RESOURCE RATE SCHEDULE</b>		
<b>RESOURCE TYPE</b>	<b>NAME</b>	<b>HOURLY RATE</b>
Project Manager	Mark Rytlahti	\$145.00
Senior Cityworks Consultant	Bill Hoisington	\$145.00

A proposal from:



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