STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT made on March 25, 2013 between the City of Peoria, whose address is 419 Fulton, Peoria, IL 61602 hereinafter called the **CITY** and Applied Pavement Technology, Inc, Consulting Engineer's, 115 West Main Street, Suite 400, Urbana, IL 61801, hereinafter called the **ENGINEER**.

WITNESSETH, that whereas the **CITY** desires the following described Professional Engineering **SERVICES**, and the **ENGINEER** certifies that he/she is in compliance with Illinois Statutes relating to professional registration of individuals and to corporate practice, if a corporation, for rendering such **SERVICES**:

SERVICES included under this agreement are collection and processing of street condition information, and creation of a GIS-based data management system for the City's street assets to include street condition, alley condition, sign inventory, and light inventory. **ENGINEER's** services are more completely described in the "City of Peoria Street Asset Inventory Final Scope, Fee, and Schedule" document prepared by **ENGINEER**, and dated March 17, 2014 (Attachment A), and in the clarification document titled "20140320 Peoria Call Notes" dated March 21, 2014 (Attachment B). These documents are made part of this agreement by attachment.

NOW THEREFORE, the **ENGINEER** agrees to provide the above described **SERVICES** and the **CITY** agrees to compensate the **ENGINEER** for these **SERVICES** on a time and expense basis in accordance with the attached Schedule of Hourly Charges. Reimbursable direct expenses will be invoiced at cost, and sub-engineer services performed by another firm will be invoiced based on unit cost by asset type, as defined in the attachments. Hours in excess of 8 hours per day or 40 hours per week will only be compensated at the attached Schedule of Hourly Charges there will be no premium hourly charges awarded.

The **ENGINEER**, in signing this **AGREEMENT**, certifies that he/she has no financial or other interests in the outcome of this **PROJECT**. The **CITY** and the **ENGINEER** hereby certify that there was compliance with the provisions of the Architectural, Engineering, and Land Surveying Qualifications Based Selection Act (Chapter 30 ILCS 535) in the procurement of the **SERVICES** covered by this **AGREEMENT**.

The **ENGINEER** shall employ only persons duly licensed or registered in the appropriate category in responsible charge of all elements of the **SERVICES**, for which Illinois Statutes require license or registration, and further shall employ only well qualified persons in responsible charge of any elements of the **SERVICES**, all subject to **CITY** approval.

The **ENGINEER** warrants that they have not employed or retained any company or person other than bona fide employee working solely for the **ENGINEER** to solicit or secure the **AGREEMENT**, and that they have not paid or agreed to pay any company or person other than a bona fide employee working solely for the **ENGINEER** any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of the **AGREEMENT**. For breach or violation of their warranty, the **CITY** shall have the right to annul the **AGREEMENT** without liability or, in its discretion, to deduct from the **AGREEMENT** price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

The **ENGINEER** covenants that they have no public or private interest and shall not acquire directly or indirectly any such interest which would conflict in any manner with the performance of their **SERVICES** under the **AGREEMENT**.

IT IS MUTUALLY AGREED THAT:

The **CITY** will make payment for **SERVICES** rendered monthly in accordance with invoices rendered by the **ENGINEER**.

The total fee of all projects completed under this **AGREEMENT** shall not exceed **FOUR HUNDRED EIGHTY EIGHT THOUSAND SEVEN HUNDRED AND FORTY TWO DOLLARS ($488,742)**. The **CITY** and the **ENGINEER** each binds himself, his partners, successors, executors, administrators and assignees to each other party hereto in respect to all the covenants and **AGREEMENT**s herein and, except as above, neither the **CITY** nor the **ENGINEER** shall assign, sublet or transfer any part of his interest in this **AGREEMENT** without the written consent of the other party hereto. This **AGREEMENT**, and its construction, validity and performance, shall be governed and construed in accordance with the laws of the State of Illinois.

The **ENGINEER** agrees to make their best commercially reasonable effort to pursue the work contracted for by the **CITY** in the most cost effective manner while preserving the quality of product to be delivered.

This **AGREEMENT** may be terminated by the **CITY** upon giving thirty (30) days' notice in writing to the **ENGINEER** at their last known post office address. Upon such termination, the **ENGINEER** shall cause to be delivered to the **CITY** all databases, software, **AGREEMENTS**, shape files, partial and completed estimates and data, if any from data collection and analysis with the understanding that all such material becomes the property of the **CITY**. The **ENGINEER** shall be paid for any **SERVICES** completed and any **SERVICES** partially completed in accordance with the **WORK ORDER** issued by the **CITY**.

That the **ENGINEER** warrants that he/she has not employed or retained any company or person, other than a bona fide employee working solely for the **ENGINEER**, to solicit or secure this contract, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the **ENGINEER**, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the **CITY** shall have the right to annul this contract without liability.

EMPLOYEE/EMPLOYMENT RESTRICTIONS – The **ENGINEER** agrees, as a condition of accepting this contract with the **CITY**, that, for a period of one (1) year following completion of this contract, it shall be prohibited from hiring, directly or indirectly, any **CITY** employee or official who was involved, directly or indirectly in: (1) the selection and/or recommendation to select the **ENGINEER** for performance of this contract; (2) coordinating the efforts of the **ENGINEER** in the consummation or completion of this contract; or (3) monitoring or determining the performance of the **ENGINEER**. The **ENGINEER** further acknowledges and agrees that, upon the **CITY'S** determination that a violation of this provision has occurred, the penalty imposed, at the sole discretion of the **CITY**, may include one or more of the following: (1) cancellation of any other contract(s) between the **CITY** and the **ENGINEER**; (2) disqualification of the **ENGINEER** from bidding or being awarded future contracts with the **CITY** for a period of two (2) years; and/or (3) payment of liquidated damages to the **CITY** in the amount of TWENTY FIVE THOUSANDS DOLLARS ($25,000.00). ***This does not apply to any City Employee involved in the 2011-2012 reduction in force; nor does it apply to parties taking the Early Retirement Incentive offered by the City from November 1, 2011 through November 1, 2012.***

All documents prepared or furnished by **ENGINEER** are the **Property of the CITY** to use the documents on the Project, extensions of the Project, and for related uses of the **CITY**, subject to receipt by **ENGINEER** of full payment for all **SERVICES** relating to preparation of the documents. Any such reuse, or any modification of the documents, without written verification, completion, or adaptation by **ENGINEER**, as appropriate for the specific purpose intended, will be at **CITY'S** sole risk and without liability or legal exposure to **ENGINEER** or to is officers, directors, members, partners, agents, employees, and **ENGINEER**s. **CITY** shall indemnify and hold harmless **ENGINEER** and its officers, directors, members, partners, agents, employees, and **ENGINEER**s from all claims, damages, losses, and expenses, including attorney's fees, arising out of or resulting from any use, reuse, or modification of the documents without written verification, completion, or adaptation by **ENGINEER**. Where verification, completion, or adaptation of documents by **ENGINEER** may exceed mutually agreed upon reasonable level of effort, **ENGINEER** may be reimbursed for such effort at standard hourly rates.

The **ENGINEER** agrees to deliver all documents and databases electronically in a format compatible and acceptable with the **CITY**. Documents will be submitted to the **CITY** in either (or both as mutually agreed by **CITY** and **ENGINEER**) PDF or WORD file format. Shape files and GIS layer files will be submitted in

a format compatible with use in ESRI ArcGIS format. All computer aided drafting and design files will be submitted to the **CITY** in an AUTOCAD 2010 Format. All files received are required to function in the AutoCad 2010 environment without need for post-processing or any adjustments. Any supporting resource files or libraries shall be noted and provided with the submission of CAD documents.

The **ENGINEER** and **CITY** agree to work together on a basis of trust, good faith and fair dealing to achieve the intent of this **AGREEMENT**. Each party shall take such actions that are reasonably necessary to enable the accurate completion of the professional **SERVICES** and other obligations provided under this **AGREEMENT** as intended in a timely, efficient and economical manner.

Neither party shall be responsible for delays or failures in performance resulting from acts beyond their control. Such acts shall include, but not be limited to, acts of God, riots, acts of war, epidemics, governmental regulations imposed after the fact, fire, communication line failures, power failures, or earthquakes.

The **ENGINEER** will guard against ERRORS and OMISSIONS in the performance of the professional **SERVICES** under this **AGREEMENT**. The **ENGINEER** will apply appropriate care to the performance of the professional **SERVICES** and the preparation of all **SERVICE** products called for in this **AGREEMENT**, including but not limited to, plans and drawings, contract documents and other instruments to be furnished in the course of performance of the **SERVICES**. The **ENGINEER** shall be governed by that degree of care, knowledge, skill, and diligence that other reputable members of the engineering profession would ordinarily exercise under like circumstances within the State of Illinois. The **ENGINEER** will be responsible to the **CITY** for DAMAGES, arising from ERRORS and OMISSIONS caused by the **ENGINEER'S** NEGLIGENCE in the performance of the professional **SERVICES** and preparation of **SERVICE** products under this **AGREEMENT**. When agreed, the **ENGINEER** will be liable for special or consequential damages defined in the **AGREEMENT**.

Acceptance of the **SERVICES** will not relieve the **ENGINEER** of the responsibility for subsequent correction of any such ERRORS, OMISSIONS, and/or negligent acts or of his/her liability for loss or damage resulting there from. In the event any dispute or claim, related to construction or the construction contracts, should arise between any of the parties to this **AGREEMENT**, each party agrees to exercise good faith efforts to resolve the matter fairly, amicably and in a timely manner.

At any time during construction or during any PHASE of professional **SERVICES** performed by others based on **SERVICES** or **SERVICE** product provided by the **ENGINEER**, the **ENGINEER** will confer with the **CITY** and others upon request for the purpose of interpretation or providing clarification of the **SERVICES** or work product provided by the **ENGINEER**.

The **CITY** will notify the **ENGINEER** of any ERROR or OMISSION believed by the **CITY** to be caused by the NEGLIGENCE of the **ENGINEER** as soon as practicable after discovery. Notification may be given by the most practical means deemed suitable by the **CITY**. The **ENGINEER** will designate and keep current the name of an individual with proper address and telephone number for purposes of notification hereunder for a period of five (5) years. The notification will advise the **ENGINEER** of the nature of the matter, the action sought from the **ENGINEER** and the time constraints required for response. The **ENGINEER** agrees to contact the **CITY** promptly in accordance with the time constraints contained in the notification, to undertake necessary construction site visits and inspections, to dispatch personnel to appropriate **CITY** office locations for resolution purposes, and to complete all corrective work necessary to resolve the matter notwithstanding any disagreement or dispute as to NEGLIGENCE. In the event it is later determined that the **ENGINEER** was not negligent, the **ENGINEER** will be compensated for additional **SERVICES** performed in accordance with the payment provisions of this **AGREEMENT**. The **CITY** reserves the right to take immediate action to remedy any ERROR or OMISSION if notification is not successful; if the **ENGINEER** fails to respond to a notification; or if the conditions created by the ERROR or OMISSION are in need of urgent correction to avoid accumulation of additional construction costs or damage to state property and reasonable notice is not practicable.

Any dispute in the interpretation of the provisions of the **AGREEMENT** or the damages accessed due to **ENGINEER** ERRORS OR OMISSIONS shall be settled through negotiation between the **ENGINEER** and the City Manager or designee of the signatory parties. If they cannot agree, the dispute will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. Notice of demand for arbitration must be filed in writing with the other parties to this Agreement and with the American Arbitration Association. The demand must be made within a reasonable time after the claim, dispute, or other matter in question has arisen. In no event may the demand for arbitration be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations. The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and will not be subject to modification or appeal except to the extent permitted by Sections 10 and 11 of the Federal Arbitration Act (9 U.S.C. 10,11).

This **ENGINEER'S** PROFESSIONAL LIABILITY INSURANCE policy will provide coverage for all claims the **ENGINEER** shall become legally obligated to pay resulting from any negligent act, ERROR or OMISSION related to **ENGINEER**'S professional **SERVICES** required under this **AGREEMENT**.

To the fullest extent permitted by law, **CITY** and **ENGINEER** waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and **ENGINEER**s, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project, and agree that **ENGINEER'S** total liability to Owner under this **AGREEMENT** shall not exceed $1,000,000.

ENGINEER certifies that to the best of its knowledge and belief, **ENGINEER** and **ENGINEER'S** principals: a) are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal **CITY** or agency; b) within a three-year period preceding this CONTRACT have not been convicted of or had a civil judgment rendered against it for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of federal or state anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property; c) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph 5-40(b); (d) have not within a three-year period preceding this CONTRACT had one or more public transactions (federal, state, or local) terminated for cause or default.

The **ENGINEER** agrees that it shall not knowingly enter into any lower tier covered transaction when a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized, in writing by the **CITY**. The **ENGINEER** agrees that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transaction", provided by the DEPARTMENT, without modification, in all lower-tier covered transactions and in all solicitations for lower-tier covered transactions. The **ENGINEER** may rely upon a certification of a prospective participant in a lower-tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless **ENGINEER** knows the certification is erroneous. **ENGINEER** may decide the method and frequency by which it determines the eligibility of its principals. Each **ENGINEER** may, but is not required to, check the Nonprocurement List. If an **ENGINEER** knowingly enters into a lower-tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation, in addition to other remedies available to the federal government, the **CITY** may terminate the CONTRACT for cause or default.

The **ENGINEER** shall obtain the following minimum amounts of insurance from insurance companies authorized to do business in the State of Illinois:

(1) Workmen's Compensation Insurance in accordance with the laws of the State of Illinois.

Commercial General Liability. Required liability insurance coverage shall be written in the occurrence form and shall provide coverage for the operations of the CONSULTANT: operations of SUBCONSULTANTS (contingent or protective liability); completed operations; broad form property damage; and contractual liability. The general aggregate limits shall be endorsed on a per PROJECT basis.

(1) General Aggregate Limit $2,000,000
(2) Each Occurrence Limit $1,000,000

The coverage shall provide by an endorsement in the appropriate manner and form, the City of Peoria, its officers, directors, employees, agents, and representatives, are named as additional insured with respect to the policies and operations performed. The **ENGINEER** may accept a separate owner's protective liability policy provided all coverage, limits and endorsements are in conformity with this Section.

Commercial Automobile Liability. The policy shall cover owned, non-owned and hired vehicles.

Bodily Injury & Property Damage
Liability Limit Each Occurrence $1,000,000

Umbrella Liability. Any policy shall provide excess limits over and above the other insurance limits stated in this Section. The **ENGINEER** may purchase insurance for the full limits required or by a combination of primary policies for lesser limits and remaining limits provided by the umbrella policy.

Such insurance shall be maintained in full force and effect during the life of the AGREEMENT and shall protect the **ENGINEER**, its employees, agents and representatives from claims for damages, for personal injury and death and for damages to property arising in any manner from the negligent act or failure to act by the **ENGINEER**, its employees, agents and representatives in the performance of the SERVICES and/or WORK.

Certificates showing that the **ENGINEER** is carrying the above-described insurance in the specified amounts shall be furnished to the **CITY** before it is obligated to make any payment to the **ENGINEER** for SERVICES and/or WORK performed under the provisions of the AGREEMENT. The certificates shall provide that the policies shall not be changed or cancelled during the life of the AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have affixed their hands and seals this _____ day of , 201___.

Executed by ENGINEER:	
Attest: Casey Brooks	By: Kathryn A Zimmerman
Title: Business Development Coordinator	Title: President

Executed by CITY:	**City of Peoria, Illinois**
Attest:	Reviewed and Approved:
By: Beth Ball	By: Patrick Urich
Beth Ball	Patrick Urich
Title: City Clerk	Title: City Manager
	By: Sonni Choi Williams
	Legal Department
	Title: Corporation Counsel
	By: Michael Rogers
	Michael Rogers
	Title: Director of Public Works

City of Peoria Street Asset Inventory
Final Scope, Fee, and Schedule
Peoria, Illinois

Prepared By:
Applied Pavement Technology, Inc.
115 W. Main Street, Suite 400
Urbana, IL 61801
217-398-3977
www.appliedpavement.com

March 17, 2014

providing engineering solutions to improve pavement performance

1. Introduction

Applied Pavement Technology, Inc. (APTech) is pleased to submit this final scope, fee estimate, and schedule to the **City of Peoria, Illinois** (City) for a project to collect and process condition information, and create a GIS-based data management system for the City's street assets. In the preparation of this submission, the APTech team built on the original proposal submittal and considered additional information provided by the City in the scoping meeting of February 19, 2014.

In particular, during the scoping meeting the City advised that they desired to collect pavement inventory and condition information, and street sign inventory. In addition, the City asked that the following items be included within the scope:

- Lights along roadways.
- Alley condition surveys.
- Signs in alleys.
- Lights in alleys.

The following sections of this submission provide APTech's revised and final approach, costs, and schedule for completion of the work for the City.

2. Project Approach

In coordination with the City and following a review of available information, the APTech team was able to better identify the project constraints and City expectations. The project team used GIS information provided by the City to gather additional detail about the assets and the network to be surveyed. The following tasks reflect that additional information and present the revised project scope.

Task 1 – Project Coordination and Data Dictionary

The project coordination task provides a mechanism for routine coordination and communication of project needs. In the team's proposal the first task was more focused on project initiation. The team was able to accomplish some of the proposed tasks during the February 19 scoping meeting. However, there is an ongoing requirement for coordination, requests for information, and status reports. The following activities will be accomplished under this task throughout the contract:

- Project initiation meeting/discussions.
- Routine coordination between the APTech Project Manager (PM) and the City PM.
- Requests for specific information required to populate the pavement management system.
- Requests and coordination related to the continued development of the GIS.
- Coordination of schedule and deliverables.
- Finalization and submission of the Asset Inventory Data Dictionary.

As part of the scoping process the APTech team created a draft Asset Inventory Data Dictionary. This document was discussed in the scoping meeting, and revisions were made as a result of those discussions. The current data dictionary is attached to this proposal. If additional fields are desired that will not be populated during this project's data collection and analysis efforts, they will be added and there will be no additional costs. However, if the City desires additional fields and population of those fields there may be cost implications.

Deliverables from Task 1 will include:

- Notes documenting project coordination meetings and discussions.
- A Final Asset Inventory Data Dictionary for the City of Peoria.

Task 2 – Network Definition

The pavement management system requires that network definition activities be done to facilitate storing and reporting of information and to provide a sound engineering basis for making maintenance and rehabilitation recommendations. The approach proposed by the team members assumes that the pavement network will be divided into facilities and sections in accordance with the procedures outlined in the US Army Corps of Engineers Technical Report M-90/05, *Pavement Maintenance Management for Roads and Streets Using the PAVER System*. APTech proposes to establish block-to-block sections for surveys.

APTech will work with the City to confirm the naming and classification of the facilities and sections during the network definition task to ensure consistency with any current City standards. The existing MicroPAVER database created by APTech in the past contains some facility names and this format will be used as a starting point. During the discussions in February the City PM indicated she would investigate existing naming for alleys so that any naming would be consistent with those already established for emergency services. Once this naming convention is provided it will be used for alleys. If nothing is provided the APTech team will work with the City to establish a naming convention for the alleys.

In setting up MicroPAVER for City use certain minimum information will be required. APTech will first work with the City to see if any of this information is in existing records. If it is not, efforts will be made to gather or estimate as much of this information as possible from field data collection activities. This data will include, at a minimum, the following items:

- Location information (referencing and from and to characteristics);
- Dimensions (length, width, area);
- Surface type;
- Last construction date; and
- Facility type.

Additional construction information and subgrade details will be included as available.

As part of the project scoping work the City provided available GIS information. A review of this information found many opportunities and requirements for improvement so the GIS files could be used for routing of data collection and presentation of results. Crawford, Murphy, & Tilly (CM&T) will work with the GIS files to improve and establish a base file for project work.

This improved GIS file will provide the City with a much-improved layer representation of the roadway network that it is responsible for, including alleys.

The following deliverables will be prepared and provided to the City as part of Task 2:

- An updated MicroPAVER data base with a complete network definition for the City.
- An improved GIS base map from which to plan surveys and link resulting data.

Task 3 – Field Data Collection

Field data collection will begin once weather, road conditions, network definition, and equipment availability constraints are all resolved. Table 1 lists the asset information to be collected. Mandli Communications (Mandli) will collect information for the street pavements (assumed 1,000 lane-miles), street signs (estimated at 55,000 signs by the City), and lights (estimated at 12,000 street lights by the City) using their LiDAR-equipped data collection vehicle. CM&T will collect alley inventory information, including alley pavement condition (estimated at 55 miles of alleys), sign, and light inventory information. All of this data will be provided in a format consistent with the Asset Data Dictionary developed in Task 1. This will allow the development of a comprehensive asset inventory database for all project assets.

Table 1. Summary of planned asset data collection.

Asset Type	Attributes
Streets – Condition	a. PCI Rating b. Surface Type c. Lane Miles
Signs – Roads and Alleys	a. Location b. Type c. Condition d. Pole Type
Lights – Roads and Alleys	a. Ornamental b. Davits/roadway c. Wood pole
Alleys – Condition	a. General Condition b. Surface Type c. Length

Data collected by Mandli for street pavement condition will be transferred to APTech for data reduction to PCI values, as will be described in Task 4. Alley condition will be rated on a 1 – 10 scale, with 1 being a pavement requiring reconstruction, and 10 being a pavement requiring little to no maintenance. The City will be provided with a legend showing the rating schema for alleys.

Data collected during task 3 will feed directly into the analysis conducted in task 4, and reporting in task 5. There are no specific deliverables planned for task 3. The APTech team will provide regular status updates during operations as part of ongoing project management coordination.

Task 4 – Data Analysis

Given the different types of information being generated through this work effort, this task will involve two parallel work efforts. Generating PCI values and populating the MicroPAVER database will be done separately from compiling the street asset inventory. These are discussed separately below.

MicroPAVER Database Setup

Once data collected by Mandli is initially processed and tagged to the appropriate roadway segment, data will be transferred to APTech to conduct pavement condition surveys using image viewing software designed and developed by Mandli. The PCI survey procedure, developed by the U.S. Army Corps of Engineers and promoted by the American Public Works Association (APWA), will be used to rate the condition of each pavement management section in the database.

During the PCI survey procedure, the types of distress present on the pavement surface are quantified in terms of type, severity, and extent. The PCI surveys will be conducted to conform to the proposed PCI sampling standards presented in table 2.

Table 2. Proposed sampling rate.

Total Area (ft^2)	Total Number of Samples	Number of Samples to Inspect
1 to 12,500	1 – 5	1
12,501 to 25,000	6 – 10	2
25,001 to 37,500	11 – 15	3
37,500 to 100,000	16 – 40	4
> 100,000	41+	10%

In addition to the pavement distress data, the rutting information Mandli collects and processes will also be provided for each section. The field data will be linked to the street (branch) and section IDs provided by or created for the City. The PCI survey results will be uploaded into the MicroPAVER database and PCI values for all pavement sections will be calculated.

Once the network is established and condition data is in MicroPAVER, APTech will review performance models and treatment strategies to calibrate to the greatest extent possible the performance prediction capabilities of the pavement management system. It is expected that this will have to be refined over time and with extended use by the City.

Compilation of the Asset Inventory

Information from the asset data collection activities will be compiled into a database consistent with that defined in the Asset Database Data Dictionary introduced in task 1. Assets will be sorted by asset type in the database for easy review. Mandli will prepare an inventory of the street lights and signs from their combined ROW images and LiDAR point cloud. Where possible an indication of sign condition and light owner will be provided. Attributes planned for collection are itemized in the Asset Inventory Data Dictionary attached to this proposal.

CM&T will inventory signs and lights for the alleys. This information will be combined with the inventory from Mandli to create a comprehensive inventory of the signs and lights. Layer shape files will be provided for each, showing attribute information.

Where appropriate, a reference file name for a JPEG image showing a photo of the asset will be included in the database, with JPEG files named accordingly, so the City has both a description of the asset in the database and a corresponding photo taken at the time of data collection.

Deliverables from task 4 will feed directly into the preparation and presentation of results planned in task 5. As such there are no specific project deliverables scheduled upon completion of task 4.

Task 5 – Preparation and Presentation of Results

This task involves the final compilation and quality assurance review of all required information, and submittal of this information to the City for its review. At this point these deliverables are expected to include:

- An asset inventory database, with a separate file containing JPEG images of assets sorted by type.
- An improved City GIS roadway network definition.
- Mandli Workstation Software (2 installations).
- GIS layers (shape files) with street asset information. One layer will be provided for each asset type so that the City may overlay these in their GIS system and view them as desired.
- An updated MicroPAVER database containing PCI values from the street surveys, and a summary report showing current network condition.
- A draft proposed set of budget scenarios for improving street conditions (where required) to achieve a PCI rating of 80.

The list of deliverables above will be submitted to the City in electronic format for review. Given the amount of information involved, it is anticipated that review of this information will require some time. Without an understanding of the staffing resources available at the City to complete this review, it would be presumptive to assign a specific time for review. APTech will work with the City to coordinate the reviews and develop the final project deliverables based on feedback from the City.

Task 6 – Presentation of Final Deliverables and City Meetings

The final task of the project incorporates City review comments into the deliverables, and includes submittal of final deliverables to the City and participation in meetings with the City and with the City Council to explain the project process, the results of the effort, and budgetary

considerations to achieve City goals for its street assets. If desired, APTech will work with the City to prepare an agenda for the presentation that will explain the results of the project clearly and succinctly to the City Council, utilizing graphics wherever possible to show current and future network condition given potential budgetary decisions.

3. Estimated Project Costs

Table 3 below provides APTech's final proposed project costs, including the added asset inventory items. Line item costs are provided by asset type as requested by the City in the scoping meeting.

Table 3. Proposed costs for base project.

Tasks	Cost Item	Cost ($)

4. Approximate Project Schedule

Figure 1 provides the proposed approximate project schedule. It is anticipated that the project will begin on or about the first of April, and should be substantially complete by August 1. The schedule is indicated as approximate due to the possibility of delays beyond our control. It is acknowledged that this project will provide information into City planning and budgetary

decisions, which will be under way in the summer. Time is of the essence, and every effort will be made to complete project activities on or before the times shown on the schedule in figure 1.

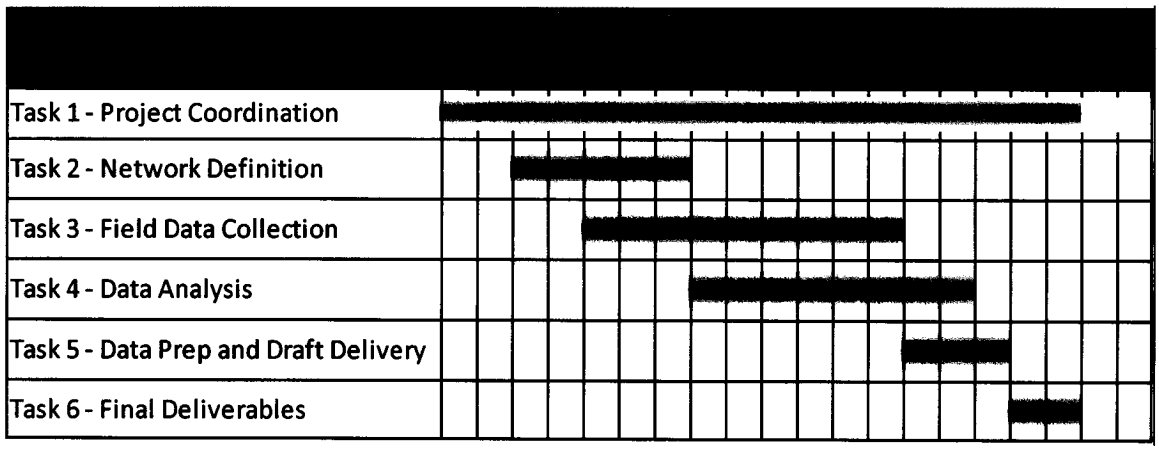

Figure 1. Proposed approximate project schedule.

Attachment

City of Peoria

Proposed Asset Inventory Data Dictionary

Mandli Communications, Inc.

Data Dictionary

Road Signs Face

Reported Attributes:

	Attribute	Description
1	ID	Universally Unique Identifier
2	Route ID	Unique Route Identifier
3	Direction	Direction of Travel (+ or -)
4	Mile Point	LRS Mileage of Asset Location
5	Latitude	Location of Asset
6	Longitude	Location of Asset
7	Elevation	Location of Asset
8	Frame	Frame Number of the Image That is Closest to the Asset
9	Collected Date	Field Collection Date
10	Condition	Sign Face Condition (Good, Fair or Poor)
11	Condition Comment	Basis of Condition Rating if Fair or Poor (based on agreed upon pick list)
12	Sign Code	MUTCD Code or City Defined Code
13	Facing Direction	Cardinal Direction that Sign Faces (N, NE, E, SE, S, SW, W, or NW)
14	Rear Facing	Flagged if Sign is Meant for Opposite Direction of Travel

Road Sign Support

Reported Attributes:

	Attribute	Description
1	ID	Universally Unique Identifier
2	Route ID	Unique Route Identifier
3	Direction	Direction of Travel (+ or -)
4	Mile Point	LRS Mileage of Asset Location
5	Latitude	Location of Asset
6	Longitude	Location of Asset
7	Elevation	Location of Asset
8	Frame	Frame Number of the Image That is Closest to the Asset
9	Collected Date	Field Collection Date
10	Mount Type	Sign Support Type (based on agreed upon pick list)
11	Sign Count	Number of Sign Faces on Support

Streetlight

Reported Attributes:

	Attribute	Description
1	ID	Universally Unique Identifier
2	Route ID	Unique Route Identifier
3	Direction	Direction of Travel (+ or -)
4	Mile Point	LRS Mileage of Asset Location
5	Latitude	Location of Asset
6	Longitude	Location of Asset
7	Elevation	Location of Asset
8	Frame	Frame Number of the Image That is Closest to the Asset
9	Collected Date	Field Collection Date
11	Light Type	• Based on agreed upon pick list
12	PoleType	• Based on agreed upon pick list
13	Identification	Owner/Operator text on asset (if visible). • Text "SL" followed by 7 digit numerical code

ATTACHMENT B

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Meeting Notes

Subject: City of Peoria Street Asset Inventory – Pricing for Signs and Lights

Date: March 20, 2014

Time: 3:15pm

Participants: City of Peoria - A. Klopfenstein, S. Reeise, N. Stoffer

APTech Team – M. Gardner, M. Caya, T. Caya, M. Zick

These notes are provided as documentation of the teleconference held on March 20, 2014 to discuss pricing as submitted in the March 17, 2014 Scope, Price and Fee Proposal for the City of Peoria Street Asset Inventory. The purpose of the call was to discuss questions asked by the City. Discussions resulted in resolution of the questions as discussed below.

An email from Scott Reeise dated Sunday, March 16 asked the following questions:

1. Under task 3 of data collection it says Streets – Condition and signs 1,000 lane miles. This gives the impression that sign collection in that 1,000 miles is included but then you have an additional amount for the 55,000 signs?
2. Also, what happens if we have only 6,000 street lights and 40,000 signs? Is there a credit or is this amount a lump sum?

For question 1, the amount provided as the first line item under Task 3, "Streets – Condition and Signs," in the amount of $153,750 is for the field data collection for 1,000 lane-miles by Mandli, including pavement images, ROW images, and LiDAR data. The separate line items for "Streets – Sign Inventory" and "Streets – Lights" are for the data reduction to develop the inventory from the field collected ROW images and LiDAR data.

There was considerable discussion about question 2, to ensure understanding of the process and the pricing. City staff acknowledged that the budget is a concern, and every effort needs to be made to stay on top of and control the budget so that it is not exceeded. With this in mind the following points were accepted by the group:

- Pricing for signs and lights is per unit based for the assumed number (plus a 2.5% G&A fee for APTech). With this in mind the following prices per unit will be billed for the number of units in the inventory:
    - Signs - $2.05/sign
    - Lights – 3.41/light
- The City desires to maintain an idea of current cost as accurately as possible. In order to do this the APTech team will provide an indication of number of signs and number of lights inventoried at 25, 50, 75, and 100 percent of lane-mileage.
- Signs and lights in the alleys are being collected separately, and are not a part of the numbers above. Pricing shown is based on an assumed collection rate for the estimated 55 miles of alleys and is considered an upper limit amount.

These agreements resolved the questions to the satisfaction of the City of Peoria staff. This concluded the call.