
TOWN OF FISHKILL

Highway Data Software Project

Request for Proposals

RFP # 16-003

Proposal Due: 12-06-16

11-02-16

**TOWN OF FISHKILL
807 Route 52, Fishkill, New York 12524**

Highway Data Software Project *RFP*
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I. Introduction

The Town of Fishkill seeks to empower its department leaders with the information needed for true data-driven decision-making. This request for proposals seeks to develop a program for department leaders to gather and process meaningful cost and operational information. The Town found that previous efforts to gather this type of information have relied on gathering any available data without much specificity. Some efforts to develop such programs have aggregated information from across a wide range of service providers without a consistent use of terms for cost items. This project attempts to change that. The key elements in this change are to ensure that cost data terminology has consistent meaning amongst all reporting users and the reporting users are partners in the development of the program.

Using a grant provided by FRB, the Town seeks to develop a mobile-friendly software system designed for local highway departments that delivers truly comparable cost metrics and performance information.

The funding from the FRB reflects the desire of Executive Leaders to support projects that promote information and service sharing among the state's 1,600 general-purpose municipal governments, and lead to better and more efficient service delivery. As such, this RFP must fulfill short and long-term objectives. The proposed project is a **pilot project**, which will serve as a **proof of concept** for a software system that when completed, will uniquely:

- Respond to core operational needs of the participating departments
- Be comprehensive to the needs of a wide variety of local highway users
- Be affordable to most local highway departments
- Be structured to promote widespread adoption among NYS municipalities

II. Defined Terms

The following table defines terms commonly used throughout this document.

Term	Definition
Crew Staff	Staff deployed to perform actual work of department, including both staff who service equipment and other assets at a fixed location and those who work in the field
DOT	New York State Department of Transportation
FRB	New York State Financial Restructuring Board for Local Governments
HDP	Highway Data Project, the project which this RFP seeks to implement
Office Staff	Administrative staff who work in an office setting within the participating department
Participating Department	The Town of Fishkill Highway Department, the Dutchess County Department of Public Works, and other municipal highway departments participating in the pilot project described in this RFP
RFP Coordinator	the formal contact designated by the Town for all communication regarding this RFP
Steering Committee	A committee appointed by the Town of Fishkill consisting of representatives of each participating department with a defined role to advise and direct procurement and implementation decisions for the project
The Town	The Town of Fishkill, the author and sponsor of this RFP
Town Clerk	The officer of the Town of Fishkill designated to receive proposal submissions

III. Project Overview

The Town is seeking to purchase/develop a data system for local government highway departments to manage all aspects of highway department operational information. The successful vendor will provide the

software system, develop a comprehensive database adaptable to departments of varying sizes and needs, install the system on the computer equipment owned by participating departments at their work locations, troubleshoot the system to insure it is operating properly, convert and/or migrate the participating department's existing databases into the new software system, provide initial training to the participating department users and project management team, provide and execute regular software updates as they become available, assist the participating department users in creating customized reports, and provide on-going technical support to all software system users and supervisors for the life of the system installation. Specific performance requirements for this project are detailed in V – Scope of Work on page 5.

The Town identified a group of public works and highway departments within Dutchess County ready to participate in this pilot program (participating departments). The departments expressed an interest in similar goals to the Town of Fishkill and were deemed to have appropriate available resources to effectively do so. The Town then engaged a steering committee with representation from each participating department. The steering committee will have a defined role in determining which technologies the Town procures, how it implements the proposed data system, and what common data collection and reporting standards are adopted by each participating department. Recognizing the independence and variation in practice among departments, the Town expects that consensus of the committee will determine common standards and practices. The selected vendor will act as a facilitator, assisting the steering committee to develop shared understanding and common terminology around key dimensions of highway department activities and outcomes.

The project is intended to deliver the following outcomes:

1. Assist participating departments to develop common data reporting standards and associated tools, providing at their fingertips information useful to:
 - a. manage their operations as strategically and efficiently as possible;
 - b. evaluate the costs and benefits of proposed operational changes or service sharing opportunities as they arise or are implemented; and,
 - c. communicate more routinely and productively with other officials inside and outside their jurisdictions whose support and cooperation are essential to their work but often contingent upon answers that are difficult to find with current record-keeping practices.
2. Furnish public explanation and justification for sustainable highway budgets.
3. Produce and prove a model for statewide implementation of a practical, cost-effective system capable of providing truly comparable cost metrics and performance standards throughout the various agencies charged with road and bridge maintenance.

IV. Background and General Information

A. Highway Departments Overview

Town highway department superintendents, and their peers in public works departments in cities, villages and Dutchess County, have responsibility for the maintenance of highway assets, which include roads, bridges, culverts, drainage routes, guiderails, signage, sidewalks, parks, vegetation control, and more. In addition, these units maintain fleet vehicles and equipment, evaluate asset conditions, prepare capital construction plans and annual budget proposals, prepare and manage service bids, manage service contracts, respond to and prepare state and federal reports, respond to weather related emergencies and perform a wide variety of seasonal activities. Towns and villages generally operate with fewer than ten employees, while cities and the county have multiple work crews.

Users of the software system have variable and generally limited computing experience. Users have variable and limited availability for training, but will likely need extensive training and documentation to use the

proposed system. Depending on management determination, crew staff may be permitted and encouraged to complete work reports directly in the field. In other departments, only the office staff will have this capability. Some town departments have multiple office staff with moderate computer proficiency, while others have no office staff besides the department head. Some town departments have crew members who may be proficient entering data into a computer or mobile device, while others may have no personnel who comfortably use such technology. Towns may or may not have specialized IT support available to assist in implementation and training efforts.

See Exhibit E – Characteristics of Participating Departments on page 46 for specific detail on characteristics of each department.

B. Current System Overview

In all participating departments, crew staff are generally required to prepare “work reports” describing work performance and accomplishment for the day. These vary greatly in format and level of detail. At its core this project seeks to digitize and standardize this recordkeeping practice among participating departments.

The participating departments vary with respect to data capture and use. One town has an existing electronic system for managing its assets, WebDPW. The county Department of Public Works utilizes Ron Turley Associates for fleet management, but has no electronic recordkeeping system for management of capital assets it maintains. The other towns do not have comprehensive electronic records and rely on a mixture of paper records and ad-hoc databases in Excel spreadsheets. Most towns do have electronic fuel management systems such as FuelMaster®. Paper records are not standard from one town to the next and vary in level of detail and completeness.

C. Technology Standards

The following technology standards are in place with the participating departments and it is expected that the new fleet management system software will be compatible with these standards:

- Desktop Computer Operating System: Windows 7/8/10
- Mobile Operating System: Android
- Server Operating System: Vendor or Third-Party Solution Required

Vendor will be responsible for maintenance and support of any additional software required.

V. Scope of Work

A. General Requirements

The Town and the participating municipal departments intend to acquire and implement a software system to manage all aspects of highway department operational data. The software must accommodate the range of department practices and levels of user proficiency present in each department. Descriptions of product functions and product demonstrations should illustrate clearly how each module described can fit into existing practices described in this RFP. The finished program will need to minimize the additional burden of data entry associated with generating such reports by providing a turnkey solution that does not require extensive in-house IT support. Users should be able to obtain relevant data on demand and in real-time regarding cost of services and outcomes achieved.

Local highway departments seek a data entry process tool that builds on and digitizes existing daily work reporting tasks. These data entry and quality assurance tasks must not impose an infeasible burden in terms of added work. The software system must replace alternative data entry practices in place (such as home-grown spreadsheets, old digital records systems, or paper-based records system).

B. System Requirements

Refer to Exhibit C – System Specifications on page 14 for a complete list of minimum performance and functional requirements of the desired system. The Town will consider both web-based or windows based software systems. These requirements are broken into the following components:

1. Functional Requirements
 - a. Cost Accounting
 - b. Equipment Management
 - c. Pavement Management
 - d. Fixed Asset Inventory
 - e. Service Requests
 - f. Miscellaneous Reports
 - g. Accounts Payable Function (or easy integration to existing software)
 - h. Accounts Receivable Function (or easy integration to existing software)
2. Technical Requirements
 - a. Backend/Storage
 - b. Interfaces/Interoperability
 - c. Security
3. User Requirements
 - a. Office Staff
 - b. Crew Staff
 - c. Support
4. Transition Requirements
 - a. Training
 - b. Configuration
 - c. Data Conversion
5. Scalability Requirements
 - a. Ability to support multi-tenant installations state-wide
 - b. Comprehensive online documentation for all supported functionality

C. Common Data Collection and Reporting

The selected vendor will develop specific standards for common data collection practices and reporting in collaboration with the steering committee. Refer to Exhibit D – Preliminary Common Standards on page 23 for a complete description of preliminary standards considered thus far for this project.

At minimum, the project should enable participating departments to produce data that are complete, consistent, accurate, and based on the relevant industry standard that measure the following dimensions of each department's program in terms that are comparable among all participating departments:

1. Cost: amount of each operation performed and cost of performance normalized to a standard unit of accomplishment;
2. Preventative maintenance: amount and extent of preventative maintenance and pavement management practices performed across highway network;
3. Service requests: number, nature, location, disposition and time to complete of service requests initiated in response to public or staff reports of issues with highway infrastructure; and,
4. Pavement condition and traffic volume: mileage-weighted condition of highway network.

While responses do not need to provide a specific solution for aggregating common data and analyzing it, vendor response should address how data from each participating department can be routinely extracted for analysis in a third-party data warehouse.

D. Project Management and Implementation Plan

1. Project Management

The successful proposer shall assign a single project manager dedicated and available for the entire duration of the project. The project manager will be the main contact for all communications during the implementation phase. Each participating department will designate an individual responsible for co-managing implementation within that municipality and marshaling municipal resources as needed to achieve implementation.

The proposal response must detail the specific project management services offered.

2. Implementation Plan

The Town requires that each proposer prepare a detailed implementation plan outlining the required tasks, estimated hours, responsibility, major deliverables and timing. This plan should also outline technical support and training as part of implementation.

Existing records in departments may not be computerized. Existing computerized records may be incomplete and will not conform to common standards. Temporary assistance may be available to assemble existing records into new digital form for on-boarding process. The selected vendor must assess existing records for quality, integrity, and functionality.

Proposer should identify specific, measurable goals that relate directly to the desired outcomes described in this RFP. Proposer is encouraged to suggest ways its product's impact on performance can be measured and evaluated as a proof of concept for a later statewide implementation.

An ideal proposal will include examples of how the following beneficial impacts may be measured over the course of project implementation:

- Better tracking of expenditures for maintenance and capital projects
- Ability to assess activity costs for specific procedures
- Improved business processes and analysis
- Reduction in costs to obtain materials through more effective purchasing analysis
- Ability to establish benchmarks and best practices.
- Improved records retention

E. Annual Maintenance and Support

As part of the initial system purchase, participating departments will receive one year of technical support. This support will include software maintenance, support services, and application upgrades. This first year of technical support shall commence with all participating departments' acceptance of the software system's installation, implementation and debugging.

1. Complementary support services will minimally include the following:

- Unlimited telephone and email technical support (responses provided within one business day of such requests.)
- Web portal for incident reporting and tracking
- Online application documentation
- Remote diagnostic capabilities to allow vendor to perform diagnostic services on participating departments' systems remotely

2. The proposal pricing shall include the cost per year for 5 additional years of maintenance and support.

VI. Proposal Requirements

This RFP is intended to provide interested firms with an opportunity to demonstrate their ability to provide and implement the HDP. The content of the proposal should respond to the information presented in this RFP. The Town of Fishkill may request any or all firms to provide a demonstration of their software system.

Proposals **must include**:

1. Company background and experience. This section should provide the following:
 - a. A brief history of the company
 - b. Major products and services offered
 - c. Experience performing work as outlined in the RFP
 - d. Number of clients who use company's comparable software
2. Project work plan and schedule. The proposer is requested to outline their suggested work plan and schedule from the time of contract execution to completing data conversion and final implementation and debugging. See V.D – Project Management and Implementation Plan on page 7.
3. System description and functionality. The proposer should provide a brief overview of the system including its description and functionality. Include equipment (bar code scanners, tablets, etc.) the each participating department would need to have to take full advantage of the functionality of the software. The Town will consider purchasing equipment in addition to the software.
4. Data architecture description and diagram for common data reporting. The proposer should briefly describe and illustrate by means of a diagram how desired common data sets can be routinely extracted from each participating department's store to meet each category of preliminary reporting standards described in this RFP. This section should identify the path information will take from specific collection points in the system, through the database backend, to the data warehouse where information will be aggregated. See V.C – Common Data Collection and Reporting on page 6.
5. Annual software maintenance updates and support. The proposer should outline the services and support provided after implementation is completed and accepted by the Town.
6. System specifications. Complete Exhibit C – System Specifications on page 14, with a separate comment sheet provided for all specifications that are not marked with "Y" or "N."
7. Cost proposal. Complete Exhibit F – Proposal Cost Format on page 47 and list all itemized fees that are not included within the standard service items.
8. Vendor questionnaire. Complete Exhibit G – Vendor Questionnaire on page 53 and provide client reference information for projects similar to the scope of this RFP completed or underway within the past 5 years.

Please note: If a software demonstration is requested, the demonstration will be conducted on Town premises at a date and time to be specified later.

VII. Selection

A. General

The selection process will be based on the experience of the proposer, cost and schedule for completing the implementation and de-bugging of the software system. The Town reserves the right to reject any and all proposals and to waive minor irregularities. The Town also reserves the right to select any proposal as the basis for negotiating a contract, to exercise its discretion and apply its judgment with respect to any aspect

of this RFP, the evaluation of proposals and the negotiation and award of any contract; and to weigh its evaluation criteria in any manner it deems appropriate.

B. Evaluation Criteria

Proposals will be evaluated using the following criteria:

1. Cost
2. Schedule
3. Proposer's experience with similar projects

C. Selection and Procurement Schedule

Town anticipates the following procurement schedule:

Event	Date
Pre-Bid Conference – (upon the request of one or more bidders)	November 10, 2016 @ 10:00 a.m. Location: Town Hall 807 Route 52 Fishkill, New York 12524 Contact RFP Coordinator for reservations (see page 10)
Vendor Question Deadline	November 21, 2016
Question Response Deadline	November 30, 2016
RFP Response Due Date	December 6, 2016
Complete RFP Evaluations	December 30, 2016
Notify Finalists	January 4, 2017
Finalist Proposal Presentation (Full Day)	January 11, 2017 (alternate weather date: January 16, 2017) Please be prepared to meet during this time period.
Vendor Selection	Within 2 weeks after finalists present

VIII. Award

The Town reserves the right to make multiple awards with regard to this RFP if it is determined to be in the best interests of the Town.

The Town reserves the right to accept any submittal and/or parts thereof and/or to reject any or all submittals if it is determined to be in the best interests of the Town.

The award of a contract is contingent upon the successful execution of the formal contract agreement.

IX. Contract and Insurance Requirements

The successful proposer will be required to enter into a formal contract agreement with the Town. See Exhibit F – Proposal Cost Format on page 47.

X. Term of Contract

The contract term will begin on or about April 1, 2016 to December 31, 2016. The Town reserves the right to extend the initial contract term.

XI. Ownership of Work Product

All work products including digital forms produced or created by the vendor as a result of or related to the performance of work or services under this RFP proposal will be the property of the Town or of the participating departments.

XII. Questions and Expressions of Intent to Bid

A. Manner of Submission

Specific questions regarding this RFP must be submitted by e-mail. Questions will be accepted through the Vendor Question Response Deadline stated in VII.C – Selection and Procurement Schedule on page 9. All submitted questions and answers will be shared with all vendors who notify the RFP Coordinator (see page 10) in writing of their intent to submit a RFP response.

The preferred method of question and/or requirement clarification is via email to RFP Coordinator with a cc to supervisor@fishkill-ny.gov.

PROPOSERS MUST CHECK THIS WEBSITE FOR ADDENDA THAT MAY INCLUDE SIGNIFICANT CHANGES TO THE RFP SPECIFICATIONS.

B. Registration of Intent to Bid

Prospective bidders are strongly encouraged to register with the RFP Coordinator and provide an email address to assure they receive addenda, requests for information (RFI), and responses to RFI in a timely manner.

C. RFP Coordinator

Questions and expressions of intent to bid should be directed to the RFP Coordinator:
Joe DeFrancesco (jdefrancesco@fishkill-ny.gov).

XIII. Proposal Submission

A. Content of Submission

All proposals must include:

- Documentation to completely satisfy all items outlined in VI – Proposal Requirements on page 8.
- Completed and signed form CS-1 Proposal Form (see Exhibit A – Proposal Form on page 12);
- Completed and signed form CS-2 Non-Collusion Affidavit (see Exhibit B – Non-Collusive Bidding Certification on page 13).

B. Town Clerk

Proposals must be submitted to the Town Clerk:

Ms. Darlene Bellis

Town of Fishkill Town Clerk
807 Route 52
Fishkill, New York 12524
(845) 831-7800 x 3329
Email: dbellis@fishkill-ny.gov

C. Form of Submission and Deadline

Proposers must submit one (1) original plus eight (8) copies plus one (1) copy on CD disc or flash drive (as a single PDF document) of their Proposal to the Town Clerk (see page 10). The deadline for RFP response submission is stated the VII.C – Selection and Procurement Schedule on page 9.

Exhibit A. Proposal Form

The undersigned, having carefully examined the appropriate specifications, {reference published RFP} , the following items at the price(s) indicated:

Submitted by: _____

(company legal name)

Address: _____

Contact Name: _____

(print name)

Signature: _____

NOTE: By signing and submitting this bid for consideration by the Town of Fishkill, the vendor acknowledges that they have read, understand and agree to all aspects of the specifications as presented without reservation or alteration.

Telephone: _____

Fax: _____

Federal ID Number: _____

Email: _____

Exhibit B. Non-Collusive Bidding Certification

General Municipal Law Sec 103-d

“(a.) By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his knowledge and belief:

1.) The prices in this bid have been arrived at independently without collusion, consultation, communications, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder with any competitor;
2.) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
3.) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.”

FIRM

Name

Title

DATE

Exhibit C. System Specifications

Instructions:

Proposers must respond fully to each item. Omissions and/or incomplete answers will be deemed nonresponsive. Please respond to each specification as indicated below:

Code	Meaning
Y	Yes - the system currently meets this requirement and is included with the standard program at no additional cost. (No comment is required)
AO	Add On – yes, the system currently meets this requirement with an add-on module that is fully integrated. Provide a description and cost in the comment section.
UD	Under Development – provide a description, anticipated release date, and projected cost if possible in the comment section.
M	Modification necessary to meet this specification or the system provides this functionality in a different way. Provide a description and any additional costs in the comment section.
N	No – system does not meet and has no plans to meet this requirement.

The responses to each specification will be assigned a point value from 0 – 5 as described below:

Score	Meaning
5	Significantly exceeds the expectations in the rated area.
4	Exceeds many of the expectations in the rated area.
3	Meets all the expectations in the rated area.
2	Minimally meets all the expectations in the rated area.
1	Meets some but not all expectations in the rated area.
0	Does not meet expectations, is omitted, incomplete, and/or has insufficient information.

Note on requirements numbering convention: Requirements are numbered to reflect the component category with which they are associated. For example, requirement 1(a)-1 is the first requirement for component 1(a), "Accounts Payable".

Number	Requirement	Response Code	Comment
1(a)-1	Cost centers. Accounting system will provide for certain cost centers that can be examined for revenue/cost. System will enable drawing down from and adding to each of these centers according to their units of measure where applicable. All cost centers should also be treated as financial centers that can be debited or credited.		
1(a)-2	Treat type of activity (includes units of production to measure cost per unit of production where activity has measurable unit of production) as cost center.		
1(a)-3	Treat project (if agency groups set of work orders with a project such as FEMA recovery, Capital projects, etc.) as cost center.		
1(a)-4	Treat section (Department Division) (if agency has multiple sections/teams) as cost center.		
1(a)-5	Treat service requests as cost center.		

Number	Requirement	Response Code	Comment
1(a)-6	Treat fixed-location asset (road, road segment, components of road segment) as cost center.		
1(a)-7	Treat mobile asset (equipment) as cost center.		
1(a)-8	Treat labor (employees) as cost center.		
1(a)-9	Treat material as cost center.		
1(a)-10	For each cost center, allow setting municipal fund/account to which the center belongs.		
1(a)-11	For equipment and material cost center, track unit of measure for use and rate to charge per unit of measure.		
1(a)-12	Work orders. Office or member of work crew must be able to manage work orders that correspond to daily tasks to be performed.		
1(a)-13	Attributes of work orders include type of work to be performed (from standard list)		
1(a)-14	Attributes of work orders include reference any service request(s) associated work will address.		
1(a)-15	Attributes of work orders include reference any project/program(s) of which work order is part.		
1(a)-16	Attributes of work orders include asset or group of assets on which work is to be performed.		
1(a)-17	Attributes of work orders include team or individual assigned to perform work.		
1(a)-18	Attributes of work orders include assignment of specific people or equipment to perform work.		
1(a)-19	Attributes of work orders include start date/time for operation.		
1(a)-20	Attributes of work orders include anticipated duration (and end time) for operation.		
1(a)-21	Work reports. Office or member of crew must be able to manage reports associated with each work order. System should track batches of data entered and provide facility for batch loading from a third party system (e.g. fuel systems, fleet management systems, timecard systems).		
1(a)-22	Attributes of work reports include reference associated work order.		
1(a)-23	Attributes of work reports include draw down from materials, equipment, and labor expended.		
1(a)-24	Attributes of work reports include accounts payable (for outside services).		
1(a)-25	Attributes of work reports include location at start of operation.		
1(a)-26	Attributes of work reports include date/time at start of operation.		
1(a)-27	Attributes of work reports include location at end of operation.		
1(a)-28	Attributes of work reports include date/time at end of operation.		
1(a)-29	Attributes of work reports include reference paper form associated with record.		

Number	Requirement	Response Code	Comment
1(a)-30	Attributes of work reports include reference data entry batch with which record is associated.		
1(a)-31	Work reports should generate auditable record of changes made to reports.		
1(a)-32	Individual reports or batches should be able to be digitally certified and committed to database so they cannot be modified after they are finalized.		
1(a)-33	System should permit bulk import of fueling data from FuelMaster and similar systems via CSV spreadsheet.		
1(a)-34	System should permit bulk import of equipment assets from external fleet management system via CSV spreadsheet.		
1(a)-35	System should permit bulk import of employee rosters from HR systems via CSV spreadsheet.		
1(a)-36	System should permit import of fixed-location assets via CSV spreadsheet.		
1(a)-37	Cost rates. Each production factor (material, equipment, labor) will be assigned a rate to be charged based on unit of measure for use.		
1(a)-38	Cost rate attributes include effective date for rate.		
1(a)-39	Cost rate attributes include end date for rate (might be automatically calculated from the next later rate).		
1(a)-40	Cost rate can be set manually, imported from external list attributes, calculated from item attributes.		
1(a)-41	Cost rates for materials can allow different rates to be set depending on stockpile used.		
1(a)-42	Cost rates for equipment allow new rates to be set based on cost of maintaining asset over period of time.		
1(a)-43	Cost rates for labor can allow different rates to be set for different types of work codes (overtime, holiday, etc.).		
1(a)-44	Depreciation. Provide system for automated computation of periodic depreciation cost and application to fixed-location assets and equipment according to schedule for each asset.		
1(a)-45	Activity cost summary (cost by work type with cost per unit of accomplishment)		
1(a)-46	Activity cost summary with labor distribution (with allocation of overhead cost specified for period)		
1(a)-47	Work type listing		
1(a)-48	Activity transaction cost (list individual cost items by date)		
1(a)-49	Activity cost summary filtered to employee		
1(a)-50	Equipment utilization by employee		
1(a)-51	Employee hours not equal to regular workday (possible over or under time)		
1(a)-52	Employee time summary (for specified period, useful for reconciliation against external timecard system)		

Number	Requirement	Response Code	Comment
1(a)-53	Employee labor + equipment cost report (for specified period)		
1(a)-54	FEMA project cost		
1(a)-55	FEMA asset cost		
1(a)-56	Capital (GASB-34) project cost report		
1(a)-57	Material inventory balance report		
1(a)-58	Material inventory transaction report		
1(a)-59	Material inventory transaction report filtered by type of transaction (purchase, use, transfer, etc.)		
1(a)-60	Payroll report (employee hours, rates, costs for pay period)		
1(a)-61	Project cost summary		
1(a)-62	Project cost detail		
1(a)-63	Asset cost summary		
1(a)-64	Asset cost detail		
1(b)-1	Equipment type. System should support a specified, but extensible list of equipment types. Each item of equipment must be assigned a type when it is added to inventory.		
1(b)-2	Attributes of equipment type include description of type.		
1(b)-3	Attributes of equipment type include maintenance schedule.		
1(b)-4	Attributes of maintenance schedule include type of operation (e.g. inspection, routine maintenance).		
1(b)-5	Attributes of maintenance schedule include amount of use (miles, hours, days)		
1(b)-6	Maintenance schedule may generate notices that remind assigned manager(s) of need for maintenance.		
1(b)-7	Maintenance schedule may generate work orders that can be assigned to effect maintenance work.		
1(b)-8	Equipment inventory. Maintain a record representing each piece of equipment owned by department.		
1(b)-9	Attributes of equipment include unique identifier.		
1(b)-10	Attributes of equipment include equipment type.		
1(b)-11	Attributes of equipment include date placed in service.		
1(b)-12	Attributes of equipment include storage location.		
1(b)-13	Attributes of equipment include assignment to specific user or group of users.		
1(b)-14	Attributes of equipment include depreciation schedule (usable life, depreciation convention).		
1(b)-15	Attributes of equipment include fund/account associated with equipment.		
1(b)-16	Equipment utilization summary by employee		
1(b)-17	Equipment utilization summary by work type		
1(b)-18	Equipment cost summary (based on assigned rate)		

Number	Requirement	Response Code	Comment
1(b)-19	Equipment maintenance (filter by status – complete, foregone, outstanding, etc.)		
1(b)-20	Equipment last meter reading		
1(b)-21	Equipment maintenance history (for specific item or any set of items)		
1(b)-22	Equipment by status (ready, out-of-order, etc.)		
1(b)-23	Equipment fueling log (for reconciliation with fueling system records)		
1(b)-24	Equipment depreciation (GASB-34 compliant)		
1(b)-25	NYS blue book rental rate (calculate from equipment attributes)		
1(c)-1	Road segment inspection reports. Should capture:		
1(c)-2	Road segment inspection report attributes should include data needed to compute pavement condition index (PCI) as used in Cornell Local Roads Program’s CAMP/RS pavement management system.		
1(c)-3	Road segment inspection report attributes should include pavement condition index (if computed outside system).		
1(c)-4	Road segment inspection report attributes should include present serviceability rating (PSR) as fallback option if PCI cannot be determined for segment.		
1(c)-5	Road segment inspection report attributes should include International Roughness Index (IRI)		
1(c)-6	Road inventory		
1(c)-7	Bike routes (mileage by type)		
1(c)-8	Bridge inventory		
1(c)-9	Culvert inventory		
1(c)-10	Sign inventory		
1(c)-11	Pavement striping		
1(c)-12	Pavement management		
1(c)-13	Surface rating summary		
1(c)-14	Surface rating detail (last rating and date of rating)		
1(c)-15	Functional classification		
1(c)-16	Summary of maintenance treatments by asset		
1(c)-17	Inspection history by asset		
1(c)-18	Summary of road mileage by surface type		
1(c)-19	Listing of road assets by surface type		
1(c)-20	Average daily traffic by surface type		
1(c)-21	Summary report of mileage subject to preventative maintenance (work type is “preventative”)		
1(d)-1	Asset condition and event reports. System should enable reports of condition or events other than work performed that are specific to the type of asset being reported on.		

Number	Requirement	Response Code	Comment
1(d)-2	Built in event report should include weather conditions.		
1(d)-3	Asset type. System should support a specified, but extensible list of asset types. Each asset must be assigned a type when it is added to inventory and type cannot be changed after addition is made. Types encompass:		
1(d)-4	Attributes of asset type should include description of type.		
1(d)-5	Attributes of asset type should include maintenance schedule. (see requirement for Equipment Management)		
1(d)-6	Asset inventory. Store record corresponding to each fixed asset (road, component of road, building, etc.).		
1(d)-7	Attributes of asset should include unique identifier.		
1(d)-8	Attributes of asset should include parent asset (if it is part of a hierarchy e.g. a road segment may be part of a larger road or a culvert part of a road segment).		
1(d)-9	Attributes of asset should include asset type.		
1(d)-10	Attributes of asset should include date placed in service.		
1(d)-11	Attributes of asset should include GPS coordinates for location.		
1(d)-12	Attributes of asset should include linear referencing system location (within parent if parent has LRS).		
1(d)-13	Attributes of asset should include GIS geometry (might be referenced in external database using unique identifier) – enables mapping of assets that are not point assets (such as roads or buildings).		
1(d)-14	Attributes of asset should include depreciation schedule (usable life, depreciation convention).		
1(d)-15	Attributes of asset should include fund/account associated with asset in municipal financial accounting system.		
1(d)-16	System should allow asset condition or event reports to reference a work report associated with their creation.		
1(d)-17	System should provide capability to configure additional asset condition report types and special attributes to be captured for each type.		
1(d)-18	System should provide capability to bulk load asset condition reports from properly formatted CSV file so data can be imported from an external collection system or source.		
1(d)-19	Built in asset condition reports should include road segment type.		
1(d)-20	Built in asset condition reports should include sign type.		
1(d)-21	Built in asset condition reports should include culvert type.		
1(d)-22	Built in asset condition reports should include bridge type.		
1(d)-23	Built in asset condition reports should include catch basin type.		
1(e)-1	Service requests. Each service request corresponds to an issue reported by staff or the public.		
1(e)-2	Attributes of service request include name and contact information [e.g. phone, email].		

Number	Requirement	Response Code	Comment
1(e)-3	Attributes of service request include location where issue is reported to occur.		
1(e)-4	Attributes of service request include narrative description of nature of issue.		
1(e)-5	Attributes of service request include when issue was reported.		
1(e)-6	Attributes of service request include when reporter first observed issue being reported [if different from when reported].		
1(e)-7	Attributes of service request include narrative describing any other relevant information.		
1(e)-8	Open request status		
1(e)-9	Request aging report		
1(e)-10	Request cost report		
1(e)-11	Request log report (chronological listing of requests, filterable by asset or location)		
1(f)-1	Enables users to generate custom tabulated reports from database elements on the fly and export in common spreadsheet formats (CSV, XLS, XLSX)		
1(f)-2	Export facilities to dump data to external warehouse for analysis		
1(f)-3	List of database entities (items in each table that corresponds to options or pull-downs somewhere in the system)		
1(f)-4	Employee certifications		
1(f)-5	Employee issued items		
1(g)-1	Post accounts payable for labor, equipment, material, or services associated with production.		
1(g)-2	Track status of accounts payable (paid, unpaid, etc.)		
1(g)-3	Generate vouchers that can be printed and submitted to municipal finance office for payment.		
1(g)-4	Export data for integration with municipal accounting system.		
1(g)-5	Accounts payable check register		
1(g)-6	Accounts payable order*		
1(g)-7	Approved to pay by budget*		
1(g)-8	Approved to pay by contract*		
1(g)-9	Budget balance detail		
1(g)-10	Budget balance summary		
1(g)-11	Payment voucher		
1(g)-12	Contract balance detail		
1(g)-13	Contract balance summary		
1(g)-14	Individual claim*		
1(g)-15	Invoice report*		
1(g)-16	Monthly budget allocation report*		
1(g)-17	Payable approved to pay report*		
1(g)-18	Payable history by vendor		

Number	Requirement	Response Code	Comment
1(g)-19	Purchase order* (approved voucher?)		
1(g)-20	Request for payment		
1(g)-21	Vendor payable by invoice		
1(h)-1	Generate accounts receivable from any project, work order, or work report.		
1(h)-2	Generate documentation that can be printed and submitted to municipal finance office for receipt of payment.		
1(h)-3	Export data for integration with municipal finance system.		
1(h)-4	Accounts receivable journal		
1(h)-5	Accounts receivable turnover*		
1(h)-6	Aging summary		
1(h)-7	Customer outstanding balances		
1(h)-8	Funds received by budget item		
1(h)-9	Funds received by customer summary (one line per customer)		
1(h)-10	Funds received by customer detail (one line per receivable)		
1(h)-11	Funds received by description/organization-defined category		
1(h)-12	Receivable invoice/voucher (specific items)		
1(h)-13	Receivable by status (paid, unpaid)		
1(h)-14	Open receivables		
1(h)-15	Receivable invoice statement (summary)		
2(a)-1	Data stored in structured data store or relational database management system with robust export, backup, and data integrity features		
2(b)-1	A well-documented and versioned API providing access to system data in JSON, XML, or other common format for web services.		
2(b)-2	A token-based authentication mechanism to enable access by third-party systems.		
2(b)-3	User interfaces interact with the system through the API.		
2(b)-4	Facility to export of data automatically and on demand to external warehouses, especially CKAN and DKAN platforms, to facilitate open data exchange		
2(b)-5	Import fuel utilization data from common systems (specify which are supported out-of-the-box)		
2(b)-6	Import employee timecard data from common systems (specify which are supported out-of-the-box)		
2(b)-7	Specify any other existing data integration capabilities built in out of the box		
2(c)-1	Non-disclosure agreement and access control systems will prevent separate departments from viewing others' data		
2(c)-2	Configurable role-based access control to functions and modules corresponding to needs of management, office, crew, and employee		

Number	Requirement	Response Code	Comment
2(c)-3	All web services use modern, encrypted transmission protocols (such as HTTPS) and are designed to prevent cross-site scripting, session hijacking, and other well-known web system vulnerabilities		
2(c)-4	Passwords are encrypted		
2(c)-5	All user interactions are authenticated and logged		
2(c)-6	Robust audit facility to review what each user did in the system and when		
2(c)-7	Data are routinely backed up to secure, off-site location (daily backups going back 1 week, weekly backups going back 1 month, monthly going back 1 year)		
2(c)-8	Software components and dependencies are monitored and updated daily to address known security vulnerabilities		
2(c)-9	Each municipality will own all data stored in backend and retain the right to make that data available for inspection, copying, or reuse at its sole discretion		
2(c)-10	Vendor will have no exclusive rights, express or implied, to data collected or generated by system		
2(c)-11	Vendor maintains any proprietary source code and information needed to maintain the software in a secure repository with off-site backup		
2(c)-12	Detailed documentation of proprietary source code, internal APIs, and coding practices		
2(c)-13	Proprietary code must be accompanied by a suite of tests and well-documented testing procedure to assure quality		
3(a)-1	A desktop-based application that can run on current versions of Microsoft Windows (Windows 7 or greater) OR a web-based interface that works with Internet Explorer, Chrome, and Firefox.		
3(a)-2	Additional support for MacOS and Linux preferred		
3(b)-1	A mobile-friendly application that can run on Android and provide data capture capabilities in field with or without mobile Internet service (preferred)		
3(b)-2	A mobile-responsive, web-based interface that works with mobile Internet Explorer, Chrome, and Firefox browsers		
4(a)-1	Data dictionary and entity-relationship model must be documented in detail		
4(a)-2	Online video tutorials or step-by-step graphic instructions for all major functions supported		
4(a)-3	Online interactive training offerings		
4(a)-4	On-site training offerings		
5-1	Ability to support multi-tenant installations that might ultimately serve more than 1,600 separate agencies		
5-2	Comprehensive online documentation for all supported functionality		

Exhibit D. Preliminary Common Standards

A. Cost

The following table describes types of activities performed by highway departments and the unit of measure for accomplishment of those activities. This list is based on the internal cost accounting conventions utilized by DOT, augmented with additional categories defined by steering committee members. Additional categories suggested by steering committee do not have a code assigned.

Code	Short Description	Unit of Measure	Work Category	Detail
0110	ADMINISTRATION	NONE	NONE	General administration of the Department and its regional offices.
0114	PROJECT MANAGEMENT	NONE	NONE	All activities of the Program Management Group involving the management of selected projects are included under this code. Specific activities include: Monitor and take necessary actions to ensure that schedules, responsive to Department needs, are developed and adhered to, ensuring that once schedules are determined, the project progresses within budgetary constraints, and resolving issues and problems that extend beyond the authority assigned to each functional manager.
0116	QUAL ASUR ST PROJECT	NONE	NONE	
0121	GENERAL OFFICE SERVICES	NONE	NONE	All duties, clerical in nature, which support the Department's programs and projects. This code replaces task code 4450 - Clerical and Administrative.
0130	MEETINGS & CONFERENCES	NONE	NONE	
0138	EMPLOYEE DONATIONS	NONE	NONE	
0190	WITNESS FOR DEPT. HEARING	NONE	NONE	
0191	INTERNAL AFFAIRS OF UNION	NONE	NONE	
0193	INVESTIGATE DISCIP. GRIEV	NONE	NONE	
0194	INVESTIG. PROCESS GRIEV	NONE	NONE	
0195	LABOR AND MANGM'T MEETING	NONE	NONE	

Code	Short Description	Unit of Measure	Work Category	Detail
0196	UNION-ORG PAID LEAVE	NONE	NONE	
0198	EMP ATTEND GRIEV.HEARING	NONE	NONE	
0430	LABOR RELATIONS	NONE	NONE	All time spent at labor / management meetings, or involved in grievance or disciplinary. All physicals, drug/alcohol testing, workers comp. case management interviews, exams, awards, APW.
0477	INSPECTION	NONE	NONE	This involves the inspection of highways and/or bridges to check their condition and to identify any needed work to be done. This includes routine inspections, such as for sign encroachments, as well as inspections under emergency conditions such as natural disasters and winter storms.
04G4	GRIEVANCE PROGRAM	NONE	NONE	
04P3	DISC PRO PEF-CSEA	NONE	NONE	
0630	COURT ACTIVITIES	NONE	NONE	
0636	ACCIDENT DAMAGE RECOVERY	NONE	NONE	
0700	EXTERNAL CONTACTS	NONE	NONE	This involves all external contacts in communications with the public and other governmental agencies. It includes looking into and addressing service requests, inquiries, and public relations. It includes providing assistance to local governments and authorities. It also covers contact with the Federal Government, in particular Federal Aid Emergency work and natural disaster assistance activities.
1206	ENVIRONMENTAL ANAL.	NONE	NONE	
3190	INCIDENT RESPONSE	NONE	NONE	
3836	CONTRACT PREPARATION	NONE	NONE	
3A30	SURVEYING-FIELD	NONE	NONE	
3P10	PRELIM. ENG.- PH 5 TO 6	NONE	NONE	

Code	Short Description	Unit of Measure	Work Category	Detail
4100	ENGINEERING MANAGEMENT	NONE	NONE	
4150	HUMAN RELATIONS	NONE	NONE	
4210	MAINTENANCE ENGINEERING	NONE	NONE	
4330	AGREEMENTS AND CONTRACTS	NONE	NONE	
4A11	MANAGE FIELD OPERATIONS	NONE	NONE	This includes all management time used by other than engineering and clerical staff. This includes work planning, scheduling, mobilizing employees, reporting, and the directing and controlling of field crew activities. It also includes field inspections, attending meetings, human relations, public relations, accident investigation, Accident Damage Recovery and any other field management activities. Any related costs should be charged to this task code. This code is intended for use of HMS 2's working in a supervisory capacity. HMS 1's are considered working supervisors and should charge their time to the work task. HMS 1's may use this code only when acting in the role of an HMS 2.
4A40	UNION AFFAIR-SUPERVISORS	NONE	NONE	All time spent at labor / management meetings, or involved in grievance or disciplinary activities is charged here. This code is reserved for use by supervisors which are not union representatives.
4A82	RECEIVE TRAINING	NONE	NONE	This covers all time and costs involved in receiving training for other than engineering and clerical staff. On-the-job training should be charged to the task being taught and not here.
4A83	PROVIDE TRAINING	NONE	NONE	This covers all time and costs involved in providing training for other than engineering and clerical staff. Equipment Operator Instructor's time performing training should be reported here.

Code	Short Description	Unit of Measure	Work Category	Detail
4B01	SINGLE CRSE HMA 1.5"	LANE MILES	PAVEMENT: PREVENTIVE MAINT	Overlaying and compacting pavement surfaces with a single 1.5" layer of plant mixed bituminous material. Preliminary work such as sweeping, leveling or repairing potholes is not included and should be charged to its respective code. Include shoulder paving only when done simultaneously with mainline paving.
4B02	6.3MM ASPHALT OVERLAY	LANE MILES	PAVEMENT: PREVENTIVE MAINT	Overlaying and compacting pavement surfaces with a single layer of plant mixed bituminous material, 1" or less in thickness. Preliminary work such as sweeping, leveling or repairing potholes is not included and should be charged to its respective code. Include shoulder paving only when done simultaneously with mainline paving.
4B06	REESTAB INTERS,DRVWYS,A PR	EACH	NONE	Re-establishing intersection cross slopes and radii, driveways (asphalt, gravel, stone or concrete), parking lot transitions, aprons and radii to meet mainline grades should be charged here. Paving entire parking lots should be charged to B01. Paving DOT facilities is charged to W01.
4B07	MECHANICAL PAVEMENT PATCH	TONS	NONE	Spot patching of asphalt concrete pavement using a paver, grader or drag box to re-establish a smooth pavement surface.
4B10	PAVER PLACE SURFACE TREAT	LANE MILES	NONE	Paver placed surface treatment of pavement surfaces including spraying a thin bituminous emulsion over the pavement surface and application and compaction of a thin hot mix cover. Preliminary work such as leveling or repairing potholes is not included and should be charged to its respective code.
4B11	SURF. TRMT, CHIP SEAL	LANE MILES	PAVEMENT: PREVENTIVE MAINT	Surface treatment of pavement surfaces including spraying a bituminous emulsion over the pavement surface and application and compaction of an aggregate

Code	Short Description	Unit of Measure	Work Category	Detail
				cover. Preliminary work such as leveling or repairing potholes is not included and should be charged to its respective code. Chip Seal.
4B12	SLURRY SEAL	LANE MILES	NONE	Quick set slurry seal is the overlay of pavement surfaces with a thin project mixed cold applied treatment. Preliminary work such as leveling or repairing potholes is not included and should be charged to its respective code.
4B13	MICROSURFACING	LANE MILES	NONE	Microsurfacing of pavement surfaces is the covering of the pavement with an ultra thin layer of project mixed slurry seal. Preliminary work such as leveling or repairing potholes is not included and should be charged to its respective code.
4B14	COLD-IN-PLACE RECYCLING	LANE MILES	NONE	Cold-in-place recycling includes milling of existing pavement, mixing that material with additional liquid bituminous material and repaving using the mixed material and compaction.
4B20	COLD MILLING	SQUARE YARDS	NONE	Cold milling includes the removal of existing pavement or shoulders using a milling machine, collection of the milled material, hauling and disposal of the waste.
4B31	POTHOLE REPAIR	TONS	NONE	Includes all activities for temporary and permanent pothole repair of pavement and shoulders, including: cleaning, edge preparation, squaring of edge cuts, priming, filling with suitable material and compacting as required.
4B37	REPAIR FROST HEAVES	EACH	NONE	Repair of frost heaves include the removal of unsuitable material, pavement repair and provision for drainage, if required.
4B41	TRUING AND LEVELING	TONS	NONE	Leveling, recrowning, or banking travel lanes or shoulders to reestablish pavement cross slopes.
4B52	REP PORTLAND CEMENT PAVEM	EACH REPAIR	NONE	Repair of portland cement concrete surface using rapid setting concrete, epoxy or similar materials including cleaning and preparation of the pavement surface.

Code	Short Description	Unit of Measure	Work Category	Detail
4B53	REPAIR PAVEMENT BLOW-UPS	EACH BLOWUP	NONE	Repair of pavement blow-ups include the removal and replacement of pavement, foundation courses, and joint structures, as required. One lane width equals 1 joint.
4B59	REP/REPL PAVEM JOINTS-ASP	EACH JOINT	NONE	Includes removal of pavement adjacent to joint, squaring of edge and replacement with asphalt. Installation of pressure relief joints should be reported under this task.
4C41	SEAL CRACKS & JOINTS	LANE MILES	NONE	Includes removal of unsatisfactory joint material, moisture and debris. This work also includes the preparation of the joint material, its application and, if required, blotter aggregate.
4C64	SWEEPING	SHOULDER MILES	NONE	Sweeping performed by self-propelled pick up sweeper, drawn broom, or manual removal of debris from shoulders, curb side, and gutters adjacent to the roadway. Report manual sweeping as 0.1 mile per location.
4D01	GRADE MATRL BEHIND SHLDR	SHOULDER MILES	NONE	Grading and removing excess material including vegetation and gravel to reestablish drainage. This includes grading of unstabilized shoulders to reestablish drainage (see D31 for work under guide rail).
4D29	PREP STOCKPILE SHLDR MAT	CUBIC YARDS	NONE	Hauling to stockpile, mixing with bituminous material and maintaining the stockpile. Report Cubic Yards available for use after material has been mixed.
4D31	REM. MAT UNDER GUIDERAIL	FEET	DRAINAGE: PREVENTIVE MAINT	Mechanical or manual removal of vegetation and soil under guide rail and re-establishment of drainage.
4D32	PAVE OR WEDGE SHOULDERS	SHOULDER MILES	NONE	Mechanical paving or wedging of shoulders. Paving shoulders as part of mainline paving should be charged to the appropriate paving task code. Simultaneous paving of shoulders as part of the mainline paving operation should be charged to B01.
4D33	BACKING-UP SHOULDERS	SHOULDER MILES	NONE	Includes placing embankment material or asphalt concrete and grading the material to eliminate shoulder drop-off.

Code	Short Description	Unit of Measure	Work Category	Detail
4D34	ELIMINATE SHLDR DROP OFF	FEET	PAVEMENT: CORRECTIVE MAINT	
4D55	CONST OR WIDEN SHOULDERS	SQUARE YARDS	NONE	Involves placing shoulder material per NYSDOT specifications. Covers removal of existing material and replacement with selected material. Also includes backslope and other earthwork, seeding, etc. to complete the job.
4E01	PICK UP LITTER	BAGS OF LITTER	NONE	This consists of pickup and removal of litter and trash from a section of highway. This includes support for the Adopt-a-Highway Program. It also includes costs for contract trash removal and dump charges.
4E02	REMOVE/PAINT OVR GRAFFITI	SQUARE FEET	BRIDGE: UNSCHEDULED	Graffiti removal includes all work necessary to remove and/or cover over defaced areas with paint.
4E05	REMOVE DEAD DEER	EACH DEAD DEER	NONE	Each dead deer removed.
4E06	REM DEAD ANIMALS not DEER	EACH STOP	NONE	Each stop to make a removal.
4E08	REMOVE DEBRIS	EACH STOP	NONE	Each stop to make a removal.
4E09	REMOVE ENCROACHMENTS	EACH STOP	NONE	Each stop to make a removal. Includes removal of signs on or off the R.O.W.
4E11	BLK STRM DBRS REMOVL	CUBIC YARDS	FLOOD / STORM CLEAN-UP	Use for collection, hauling and disposal of bulk debris items including, but not necessarily limited to: non-chipped wood, sediment, gravel, rock debris, building materials, household items, etc. Includes load and haul to a disposal site.
4E12	CHPD STRM DBRS REMOV	CUBIC YARDS	FLOOD / STORM CLEAN-UP	Use for chipping and disposal of woody debris, either chipped and cast on site or chipped then loaded and hauled away. Also use for chipping operations at debris processing sites. Includes load and haul of chips to disposal site. When cast onsite the supervisor will have to make a visual estimate of quantity based on number and size of piles.
4E13	FLOOD CONTROL	EACH LOCATION	FLOOD / STORM CLEAN-UP	Charge all time spent, by location, performing flood control activities after the hurricanes, tornadoes, or localized rain events to this code.

Code	Short Description	Unit of Measure	Work Category	Detail
				This includes pumping water, sandbagging, and other activities needed to control or remove flood waters. Debris removal associated with flood damage should be charged under E11 or E12.
4E22	MOW ALL EXCEPT PARKWAYS	SHOULDER MILES	ENVIR COND - MOWING & SUPPORT	Report all types of highways except parkways to this task. Includes small machine, large machine and over-the-rail mowing. Do not factor number of passes into the measurement. Charge rest area mowing to T03 and maintenance facility mowing to W01.
4E24	MOW PARKWAYS	SHOULDER MILES	NONE	Report all types of highway mowing on parkways to this task. Includes small machine, large machine and over-the-rail mowing. Do not factor number of passes into the measurement. Charge rest area mowing to T03 and maintenance facility mowing to W01.
4E26	MANUAL MOWING&WEED REMOVL	EACH LOCATION	NONE	Any mowing or weed trimming by manual means.
4E41	APPLY HERBICIDES	SHOULDER MILES	NONE	This involves the application of herbicides to control vegetation on highway rights-of-way.
4E42	APPLY HERBICIDES	EACH BRIDGE	BRIDGE: PRESERVATION -CYCLICAL	This involves the application of herbicides to control vegetation on a bridge or culvert.
4E51	MAINTAIN SLOPES	SQUARE YARDS	NONE	Filling, grading, stabilizing or otherwise repairing slopes.
4E61	MAINTAIN LANDSCAPE PLANTS	EACH LOCATION	NONE	This covers seeding, fertilizing, mulching, care of plantings and any other landscaping activities.
4E81	REMOVE BRUSH	SHOULDER MILES	NONE	Includes cutting and disposal of brush, woody growth less than 3 inches in diameter. Report accomplishment only when brush is cut. Do not duplicate accomplishment for clean up work if done at a later date. Includes chemical treatment of stumps.
4E82	REMOVE BRUSH SPOT LOC	EACH LOCATION	ENVIR COND - SAFETY	Includes cutting and disposal of brush, woody growth less than 3 inches in diameter. Report accomplishment only when brush is cut. Do not duplicate

Code	Short Description	Unit of Measure	Work Category	Detail
				accomplishment for clean up work if done at a later date. Includes chemical treatment of stumps. Includes spot removals to improve highway sign visibility.
4E91	REMOVE TREES	EACH TREE	NONE	This is the removal of trees with or without topping or prior removal of limbs. Report accomplishment only when trees are cut so as not to duplicate accomplishment for work done after the cutting operation. May include chemical treatment.
4E95	TRIM TREES	EACH TREE	NONE	Report all tree trimming activities to this task.
4E97	REMOVE STUMPS	EACH STUMP	NONE	
4F11	MAINTAIN FENCE	FEET	NONE	This includes repairing, replacing or installing fence.
4F21	MAINTAIN NOISE WALLS	SQUARE FEET	NONE	Includes installing, repairing, replacing noise walls. Graffiti removal should be reported as E02.
4F62	MAINTAIN CABLE GUIDE RAIL	FEET	NONE	This covers all cable guide rail and median barrier maintenance costs and activities -- without regard to the type of post. Maintenance of end sections which should be reported to F67. It covers straightening, repairing, replacing, installing, and painting. Adjusting cables should be reported as 5 L.F. per turnbuckle. Use of the guide rail straightening machine should be reported with no accomplishment.
4F63	MAINT W BEAM GUIDERAIL	FEET	NONE	This covers all corrugated beam and thrie beam guide rail and median barrier maintenance costs and activities -- without regard to the type of post. Maintenance of end sections which should be reported to F67. It covers straightening, repairing, replacing, installing, and painting. Use of the guide rail straightening machine should be reported with no accomplishment.
4F65	MAINT BOX BEAM GUIDE RAIL	FEET	NONE	This covers all box beam guide rail and median barrier maintenance costs and activities including run outs -- without regard to the type of post. It covers straightening,

Code	Short Description	Unit of Measure	Work Category	Detail
				repairing, replacing, installing, and painting. Use of the guide rail straightening machine should be reported with no accomplishment.
4F66	MAINT WOOD GUIDE RAIL	FEET	NONE	This covers all wooden guide rail and median barrier maintenance costs and activities -- without regard to the type of post. It covers repairing, replacing, installing, and painting.
4F67	MAINT END SECTIONS	EACH REPAIR	NONE	This includes installing, replacing, repairing or maintaining end sections for cable and corrugated beam guide rail and median barrier.
4F68	MAINT CONCRETE BARRIER	FEET	NONE	This includes installing, replacing or repairing concrete barrier.
4F69	MAINTAIN GUIDERAIL POSTS	EACH POST	NONE	Use this code only when the rail itself is not being maintained, repaired, or replaced. This includes replacing, straightening, or reconnecting any guide rail posts.
4F81	MAINT IMPACT ATTENUATORS	EACH LOCATION	NONE	Report all impact attenuator maintenance activities to this task.
4G01	CLEAN CULVERTS & PIPES	FEET	NONE	Cleaning any culverts or pipes, including driveway pipes, cross culverts and closed drainage systems. Any inlet and/or outlet sumps required for this task are reported under G61. Large culverts, through which a bulldozer might pass, should be reported under G61.
4G04	REPAIR CONCRETE CULVERT	CUBIC FEET	DRAINAGE: CORRECTIVE MAINT	Repair damaged or deteriorated concrete culvert elements, other than the invert. Includes removal of existing materials, placement of new materials and other related work, as required.
4G05	SLIPLINING CULVERT/PIPE	FEET	GUIDERAIL: CORRECTIVE MAINT	Any culvert or pipe repair, which includes the installation of a new liner pipe or liner system, is reported to this code.
4G06	CULVERT/PIPE INVERT PAVIN	SQUARE YARDS	DRAINAGE: CORRECTIVE MAINT	Any culvert or pipe repair, which includes paving the invert with concrete, is reported to this code.
4G07	MAINT CULVERTS/PIPES	FEET	DRAINAGE: PREVENTIVE MAINT	Any culverts or pipes, including driveway pipes, cross culverts and closed drainage systems, which are repaired or maintained except as

Code	Short Description	Unit of Measure	Work Category	Detail
				defined by other task codes can be reported to this code. Report cleaning to G01.
4G09	INST/REPL CULVERTS/PIPES	FEET	DRAINAGE: CORRECTIVE MAINT	"Any culverts or pipes, including driveway pipes, cross culverts and closed drainage systems, which are replaced or installed, are reported to this code. Report sliplining installations to G05.
"				
4G10	CLEAN GRATES	EACH GRATE	NONE	Report cleaning surfaces of grates, field inlets or manhole covers not requiring the removal of the grate to this code.
4G11	CLEAN UNDRD DRAINAGESTRU	EACH BASIN CLEANED	NONE	Removing accumulations of dirt and debris from within catch basins and drop inlets is reported here. Cleaning off the top of grates should be reported to G10.
4G18	MNT,REPL,INST DR BASINS	EACH BASIN	DRAINAGE: CORRECTIVE MAINT	This task includes the maintenance, replacement or installation of manholes, field inlets, catch basins and drop inlets. Adjusting catch basins, drop inlets and manholes to new pavement grades is also included here.
4G20	MNT SURF RECH/RET BASINS	EACH BASIN	NONE	This task includes the repair, cleaning and maintenance of recharge basins.
4G21	INST/REPL SUBSURF DRAINAG	FEET	NONE	This task includes the replacement and new installations of underdrains, edge drains, weep drains or french drains.
4G31	MAINTAIN ROADSIDE DITCHES	FEET	NONE	Removing dirt and debris from existing roadside ditches and digging new roadside ditches is reported here.
4G55	MAINTAIN GUTTERS & CURBS	FEET	NONE	Repairing, replacing and/or installing new gutters and curbs. Both concrete and asphalt is reported here.
4G61	MAINT STREAM CHANNELS	FEET	NONE	This task includes maintaining stream channels on proper alignment, constructing new stream channels, installing and maintaining culvert inlets and outlets.
4H01	INSPECTION SUPPORT	EACH BRIDGE	NONE	Includes all work required to provide support for inspections of structures.

Code	Short Description	Unit of Measure	Work Category	Detail
4H05	BRIDGE WATCH	EACH BRIDGE	NONE	Includes all work required to perform flood watch activities.
4H09	SWEEPING	EACH BRIDGE	BRIDGE: PRESERVATION -CYCLICAL	Sweeping the bridge
4H10	5000 PSI W.S. WASHING	EACH	BRIDGE: PRESERVATION -CYCLICAL	Special 5000 PSI power washing of weathering steel bridges only.
4H12	CLEAN SUBSTRUCTURE	EACH	BRIDGE: PRESERVATION -CYCLICAL	Clean substructure elements to remove salt, dirt, and grit.
4H14	SEAL SUBSTRUCTURE	EACH	BRIDGE: PRESERVATION -CYCLICAL	Prepare substructure elements and apply a penetrating or coating type protective sealer.
4H29	LUBRICATE BEARINGS	EACH BEARING	NONE	Lubricate bearings and pin and hanger connections. Jack, spot paint and perform other related work, as necessary.
4H31	REPAIR/REPLACE BEARINGS	EACH BEARING	BRIDGE: CORRECTIVE	Repair or replace bearings. Jack, remove and recondition or replace non-functioning parts, grease or oil moving parts, prepare and spot paint non-wearing surfaces, reposition bearings and perform other related work, as necessary.
4H32	REPAIR CONCRETE MEMBERS	CUBIC FEET	BRIDGE: CORRECTIVE	Repair or replace damaged or deteriorated concrete primary/secondary members. Includes removal of existing materials, placement of new materials and other related work, as required.
4H33	REP STEEL SUPERSTRUCTURE	EACH MEMBER	NONE	Repair or replace damaged or deteriorated steel primary/secondary members. Include heat straightening and other related work.
4H35	REPAIR OTHER MEMBERS	EACH MEMBER	NONE	Repair or replace damaged or deteriorated primary/secondary members constructed of material other than steel or concrete.
4H36	CLEAN SUPERSTRUC & DECK	EACH	BRIDGE: PRESERVATION -CYCLICAL	Clean superstructure and deck elements to remove salt, dirt and grit.
4H39	REPAIR SEAT	CUBIC FEET	BRIDGE: CORRECTIVE	Repair or replace deteriorated portions of bridge seats, pedestals and the top of pier cap. Remove unsound material, thoroughly clean existing materials to remain, replace missing or deteriorated

Code	Short Description	Unit of Measure	Work Category	Detail
				reinforcement, place new materials, finish and perform other related work, as necessary.
4H40	REPAIR COLUMNS BEAM	CUBIC FEET	BRIDGE: CORRECTIVE	Repair or replace deteriorated portions of columns, cap beams and stem solid piers. Remove unsound material, thoroughly clean existing materials to remain, replace missing or deteriorated reinforcement, place new materials, finish and perform other related work, as necessary.
4H44	REPAIR STEEL SUBSTRUCTURE	EACH BRIDGE	NONE	Repair or replace damaged or deteriorated steel pier bents or other steel substructure members. Include heat straightening and other related work.
4H46	REPAIR EROSION&SCOUR PROT	EACH	BRIDGE: CORRECTIVE	Repair, replace or place appropriate slope and scour protection.
4H47	REPAIR FOUNDATIONS	EACH FOUNDATION	NONE	Repair or replace substructure footings and piles.
4H48	REPAIR ABUTMENTS	CUBIC FEET	BRIDGE: CORRECTIVE	Repair or replace deteriorated portions of abutments and wingwalls. Remove unsound material, thoroughly clean existing materials to remain, replace missing or deteriorated reinforcement, place new materials, finish and perform other related work, as necessary.
4H49	REMOVE LOOSE CONCRETE	SQUARE FEET	BRIDGE: UNSCHEDULED	Remove Loose Concrete
4H51	REPAIR DECKS	SQUARE FEET	NONE	Repair or replace deteriorated portions of the deck.
4H53	REPAIR JOINTS	FEET	NONE	Repair joints. Remove deteriorated or damaged sections of joints headers, and surrounding material, clean and prepare the surrounding surfaces, install new materials and headers, and perform other related work, as necessary.
4H54	REPLACE JOINT SEAL	FEET	BRIDGE: CORRECTIVE	Replace joint seals only.
4H56	LOW VISC DECK TREATMENT	SQUARE FEET	NONE	
4H57	THIN POLYMER OVERLAY	SQUARE FEET	NONE	

Code	Short Description	Unit of Measure	Work Category	Detail
4H58	REMOVE WEARING SURF	SQUARE FEET	NONE	Remove asphalt concrete or portland cement concrete wearing surface and existing membrane, if appropriate. Deck repairs should be reported under item H51 Deck Repair.
4H59	PLACE WEARING SURF	SQUARE FEET	NONE	Place asphalt concrete or portland cement concrete wearing surface on a prepared deck.
4H60	PLACE WATERPROOF MEMBRANE	SQUARE FEET	NONE	Place waterproof membrane on prepared deck.
4H61	REPAIR CURBS	FEET	NONE	Repair or replace deteriorated or damaged sections of curb. Include repairs to steel curbing, but not painting.
4H62	REPAIR FASCIA	FEET	NONE	Repair or replace deteriorated portions of fascia.
4H63	REPAIR SIDEWALKS	SQUARE FEET	NONE	Repair or replace deteriorated sections of sidewalk and median.
4H64	REPAIR PARAPETS	FEET	NONE	Repair or replace deteriorated sections of parapet.
4H65	REPAIR RAILINGS	FEET	ENVIR COND - MISC	Repair or replace damaged or deteriorated sections of the railing system or fencing. Include minor concrete and other related work. Report railing painting under code H83.
4H66	APPROACH REPAIR	SQUARE FEET	NONE	
4H67	MAINT LIGHT STAND	EACH LIGHT OR FIXTUR	NONE	Repair or replace damaged light standards and fixtures.
4H69	SEAL DECK	SQUARE FEET	NONE	Prepare the deck surface and apply a penetrating type protective sealer.
4H72	SEAL CURB, SIDEWALK, FASCIA	GALLONS	NONE	Prepare the curb, sidewalk and fascia, and apply a penetrating type protective sealer.
4H73	FILL CRACKS	FEET	NONE	Prepare and fill cracks and joints in the bridge wearing surface or in approach slabs.
4H75	CLEAN DRAINAGE SYSTEMS	EACH SYSTEM CLEANED	NONE	Unplug and clean the drainage system (scupper, joint troughs and down spouts) on the bridge.
4H76	REPAIR DRAINAGE SYSTEMS	EACH REPAIR	NONE	Repair or replace damaged or deteriorated components of the drainage system. Includes related work on surrounding concrete.
4H81	SPOT PAINTING	SQUARE FEET	NONE	Prepare and paint selected areas of paintable structural steel.

Code	Short Description	Unit of Measure	Work Category	Detail
4H83	PAINT RAILINGS	FEET	NONE	Prepare and paint bridge railing.
4H85	PAINT CONCRETE	SQUARE FEET	PAVEMENT: CORRECTIVE MAINT	Prepare and paint concrete.
4H87	PAINT BRIDGE CURB	FEET	NONE	Prepare and paint bridge curbs.
4H89	PAINT BRIDGES-GIRDER ENDS	SQUARE FEET	BRIDGE: PRESERVATION -CYCLICAL	Prepare and paint all paintable steel. This code applies primarily to painting girder ends only.
4H97	MAINT ELECT EQUIP	NONE	NONE	Maintain and repair electrical and mechanical equipment.
4H98	OPERATE MOVEABLE BRIDGES	NONE	NONE	Operate Moveable Bridges.
4J01	PLOWING/SPREADING-ONE PER	MILES PORT TO PORT	NONE	One person operation of plow trucks for snow and ice control. This includes plowing and/or spreading, appropriate spot benching and incidental loading for OPP (ie. truck operators load themselves immediately before and during storm events).
4J02	PLOWING/SPREADING-TWO PER	MILES PORT TO PORT	NONE	Two person operation of plow trucks for snow and ice control. This includes plowing and/or spreading, appropriate benching and incidental loading for TPP (ie. truck operators load themselves immediately before and during storm events).
4J03	PLOWING/SPREADING-TOWPLOW	MILES PORT TO PORT	SNOW AND ICE OPERATIONS	Operation of plow truck hauling a tow plow unit for snow and ice control (either one person or two person operation). This includes plowing and/or spreading, and incidental loading of the truck and tow plow (i.e. truck operators load themselves immediately before and during storm events). Accomplishment is miles port to port of the truck only.
4J06	MAINTAIN S&I MARKERS	EACH MARKER	NONE	This task involves the manufacture, installation, removal and replacement of plow markers. It also includes the painting and marking of drainage locations. Report manufacturing of plow markers with no accomplishment.
4J11	SUPERVISE S&I OPERATIONS	NONE	NONE	Supervision of Snow & Ice Operations includes supervisor

Code	Short Description	Unit of Measure	Work Category	Detail
				patrolling and all other Supervisory activities related to Snow & Ice.
4J25	STORM PREPARATIONS	NONE	NONE	This task is for activities related to preparing for snow and ice control for a predicted winter weather event. This also includes direct operational support activities during an event. This includes preparations made for storms that are expected and do not happen and contract mandated time that does not fall into other categories. Breaks between beats during storms should be reported here. Region 10 rest periods related to snow and ice control should be charged here.
4J27	MATERIALS HANDLING	NONE	NONE	This includes stockpiling and mixing of salt and abrasives, stockpile management (lump busting, mixing, etc.), handling salt brine, and any calcium chloride handling. Time for dedicated loader operators for snow and ice operations is charged here. Operators providing snow and ice control operations that also load their vehicles charge their time to the relevant task code, such as J01, J02, J35 or J36.
4J31	LIQUID ANTI-ICING	MILES PORT TO PORT	SNOW AND ICE PREPARATIONS	Application of liquid anti-icing chemicals directly to pavement surface. Includes direct application of liquid chemicals such as salt brine, magnesium chloride, etc. Application can be from slide-in units or dedicated liquid applicator trucks. Pre-wetting of salt from saddle tanks should be included under J01, J02, J35, or J36.
4J35	SPOT TREATMENTS - ONE PER	MILES PORT TO PORT	NONE	One person spot treatment using vehicles having plowing and/or spreading capability while on patrol or performing spot treatments. Supervisor patrol in vehicles without plowing or spreading capability charge their time to J11.

Code	Short Description	Unit of Measure	Work Category	Detail
4J36	SPOT TREATMENTS - TWO PER	MILES PORT TO PORT	NONE	Two person spot treatment using vehicles having plowing and/or spreading capability while on patrol or performing spot treatments. Supervisor patrol in vehicles without plowing or spreading capability charge their time to J11.
4J41	S&I CLEANUP OPERATIONS	EACH LOCATION	NONE	This includes post storm benching, cleaning around impact attenuators, guiderail and gore areas, loading and hauling of snow, post-storm snowblower operations, removing drift, clearing drainage facilities, and removing snow from bridges. This also includes plowing of large rest area parking lots such as at Gateway facilities that are not part of normal plowing operations. NOTE: Cleaning up abrasives should be reported to C61, C62 or C63.
4J51	REMOVE HARD PACK	LANE MILES	NONE	This includes all effort removing hard packed snow and ice.
4J71	INSTALL/REMOVE SNOW FENCE	FEET	FACILITY MAINTENANCE	Includes installing, maintaining, repairing, replacing and removing snow fence.
4S01	REPAIR EQUIPMENT	EACH VEHICLE	EQUIPMENT MAINTENANCE	This task involves the repair or preventive maintenance of equipment by Highway Maintenance Personnel. Any charges to this task must be shown on "Equipment Management Work Orders" or "PM Orders." This is not a count of individual repairs to one vehicle. Any equipment painting is charged to this task.
4S11	SERVICE EQUIPMENT	EACH VEHICLE	EQUIPMENT MAINTENANCE	This task involves the normal maintenance of equipment by operators. This task is not for servicing equipment that is part of a direct task. Pre-operation and post-operation checks by operators as well as mounting or dismounting of plows, hoppers and other attachments during their season of use should be charged as mobilization to the task this work is directly connected with. Washing and cleaning of equipment should

Code	Short Description	Unit of Measure	Work Category	Detail
				be charged to the direct task unless the cleaning is not related to any direct task.
4S81	TRANSFER EQUIPMENT	EACH TRANSFER	NONE	This task involves the transfer of equipment by Highway Maintenance Personnel. This includes transfers to or from Equipment Management Shops and other repair facilities. It also includes transfers between highway maintenance facilities and general moves within Residencies. Transfers made in conjunction with a specific task should be charged to the task the equipment will be used for. Each occurrence of a transfer should be reported.
4S82	PICK UP PARTS	EACH TRIP	NONE	Report each round trip to pick-up parts.
4T02	MAINTAIN REST AREA BLDGS	NONE	NONE	This covers all time and costs associated with maintenance of rest areas including buildings and trash removal activities. At comfort stations it includes the costs for electricity and supplies, ordinary maintenance care such as refilling soap and paper dispensers, cleaning, painting and building repairs. It also includes the operations and maintenance of water and sewer systems. It also covers the picking and bagging of trash, the emptying of barrels into a truck, and the hauling of trash to a sanitary landfill. The cost for dumpsters and contract trash removal should be charged to this task.
4T03	MAINT REST AREA GRND,P&R	NONE	NONE	Mowing lawns, caring for plantings, sweeping, cleaning snow from walks, maintaining tables, fixing grills and painting trash barrels are typical rest area maintenance activities which should be charges to this task. Major work such as pavement repairs or plowing should be reported to their respective task codes.
4V22	HELP TEAM	EACH VEH. ASSISTED	NONE	All activity related to the HELP program should be reported here.

Code	Short Description	Unit of Measure	Work Category	Detail
4V32	SUPPORT ORGS OUTSIDE TMD	NONE	NONE	This task is for cooperative work tasks where there is no other appropriate task code. NOTE: Work Orders are required for all support work for organizations outside Transportation Maintenance. Includes assisting towns, counties, villages, cities, other agencies, and other DOT program areas outside of the Transportation Maintenance program. Also includes providing traffic control and support activities to other DOT units such as bridge inspection and soil boring crews. Support work to other groups within Transportation Maintenance, such as a tree crew, is charged to the appropriate task code with no accomplishment.
4V51	ACCIDENT RESPONSE	EACH INCIDENT	NONE	Includes restoring highway to safe condition by removing glass and other debris from accident scenes when the accident participants are unknown. Section 1219 (c) of the Vehicle & Traffic Law shall be adhered to when appropriate; "Any person removing a wrecked or damaged vehicle from a highway shall remove any glass or other injurious substance dropped upon the highway from such vehicle." Although charges attributable to hazardous material spills are credited here, extreme care should be taken in approaching such sites and knowledge of the "guidelines" for this activity is required before entering the scene.
4W01	MAINTAIN BUILDINGS	NONE	FACILITY MAINTENANC E	This covers all time and costs associated with maintenance of buildings and grounds. It includes all charges for activities, equipment and materials used in the programmed rehabilitation of existing facilities. The costs for rental, fuel oil, gas, electricity, water, sewer, supplies, communications and watchman service should be charged to this

Code	Short Description	Unit of Measure	Work Category	Detail
				task. Also included are ordinary maintenance activities such as cleaning, painting and window washing as well as repairs to such facility elements as heating plants, plumbing, wiring, roofs, frames, masonry and foundations. Grounds maintenance includes such activities as paving, pavement patching, plowing, clearing parking areas and walks, mowing lawns, and sweeping.
4W21	MANAGE INVENTORY	NONE	FACILITY MAINTENANCE	This includes all charges for purchase and handling of inventoried materials. It includes time spent in keeping records, ordering, checking stock on hand, and dispensing materials to field forces including the pumping of fuel. It also includes the purchase of small tools and safety items for residency use. Stockpiling items such as sand and salt should be charged directly to J27. Managing stockpiles and hauling materials between locations NOT for a particular task is reported here. Sign inventory work is charged here.
4W31	RADIO OPERATIONS/STORM WATCH	NONE	NONE	This includes the activities of the radio operators in relaying radio or phone messages or information and contacting responsible individuals as needed.
4X11	MAINT GROUND MOUNT SIGNS	EACH	SIGN: CORRECTIVE MAINT	Includes general sign maintenance, such as removal of signs not being replaced, straightening posts, repairing or re-attaching panels, cleaning, removing graffiti, and installing temporary signs (those not reportable as 4x12) with an accomplishment of 1 per assembly worked on. This work would not require new sign posts or panels, but may include replacement hardware.
4X12	GRND MNTD SGNS INSTALLED	EACH PANEL	SIGN: NEW / REPLACEMENT	Includes each sign panel installed/replaced on Type A or B breakaway sign post(s), or Pole Mounted.

Code	Short Description	Unit of Measure	Work Category	Detail
4X29	INSPECT SIGNS	MILES INSPECTED	NONE	Count the centerline mileage of highways where signs were visually inspected in both directions.
4X41	MAINT DELIN, REF MKR,MISC	EACH MARKER	NONE	Includes all work performed on delineators and markers.
4X81	MAINT OVRHD SIGNS & STRU	EACH SIGN ASSEMBLY	NONE	Includes Annual Preventive Maintenance, Response Maintenance, Capital Replacement or New Installation
4X82	MAINT SIGNAL POLE/MAST	EACH	SIGNAL STRUCT-REPAIR REQUEST	
4X91	MAINT VARI MESSAGE SIGNS	EACH SIGN	NONE	Includes all effort to place, maintain, program and monitor variable message signs.
4Y11	MANUFACTURE SIGNS	NONE	SIGN: NEW / REPLACEMENT	This code is intended for use at the Hamburg Sign Shop. This code may be used in organizations that manufacture their own signs. This is not to be used for sign assembly.
4Z01	PAVEMENT MARKING	MILES OF PAINT LINE	NONE	Report total miles of paint line regardless of color or type using the meter totals on the striping machine. Supervisors should continue to submit the Supervisor's Weekly Pavement Marking Report in accordance with previous instructions. This code is for use by pavement marking crews.
4Z11	SPECIAL PAVEMENT MARKING	EACH LOCATION	NONE	Includes special pavement markings such as stop lines, railroad crossings, crosswalks, etc. Report the number of special markings applied. Consider each approach to an intersection as one location except for traffic islands approaching intersections which should be considered as separate locations.
4Z21	PVMNT MRK REM,GRIND,CVR	MILES OF PAINT LINE	NONE	Report total miles of paint line removed, ground or covered.
4Z31	FILL PAINT TRUCK,MISC ACT	NONE	NONE	Use this code to account for time spent malofilling the striping machine.
9310	HIGHWAY PERMITS	EACH PERMIT ISSUED	NO WORK REQUIRED	
AXB1	EMERGENCY BRIDGE INSPECT	NONE	NONE	

Code	Short Description	Unit of Measure	Work Category	Detail
AXD1	EMERGENCY DAMAGE ASSESS	NONE	NONE	Use for patrols, identification of damage and related communications and record keeping activities. This work is limited to initial damage assessment and work planning by supervisors or others without crews, doing only negligible or no actual repair work or debris removal, or setting cones/drums at occasional dangerous conditions.
AXE1	EMERGENCY OPERATIONS CTR	NONE	NONE	
AXR1	EMERGENCY ROAD INSPECTION	NONE	NONE	Use for general incident/storm response, this would include traffic control, detour signing, making lanes passable by removing isolated gravel, water, trees, etc, and patrolling for problems, flooded roadways and washouts, doing initial situational awareness, placing cones, drums or other warning devices, flagging traffic thru restricted lanes. Would include minor debris removal or removing debris from travel lane but not from the site. This work is limited to initial storm response activities during or in the immediate aftermath of the event.
	MAINTAIN/INSTALL EROSION CONTROL DEVICES	TBD	TBD	
	REMOVE BEAVER DAM	TBD	TBD	
	INSTALL GUIDE RAIL	TBD	TBD	
	REMOVE GUIDE RAIL	TBD	TBD	
	PARKING LOT MAINTENANCE/REPAIR	TBD	TBD	
	INSTALL CATCH BASIN/MANHOLE	TBD	TBD	
	REMOVE/INSTALL CATCH BASIN/MANHOLE COVER	TBD	TBD	

Code	Short Description	Unit of Measure	Work Category	Detail
	REMOVE CULVERT PIPE	TBD	TBD	
	REMOVE CONCRETE CULVERT	TBD	TBD	
	INSTALL CONCRETE CULVERT	TBD	TBD	
	SETUP/TAKE DOWN TRAFFIC CONTROL DEVICES	TBD	TBD	
	FLAGGING FOR TRAFFIC CONTROL	TBD	TBD	
	TOPSOIL/SEED/M ULCH	TBD	TBD	
	REPAIR/REPLACE MAILBOX	TBD	TBD	
	TRAFFIC SIGNAL MAINTENANCE/REPAIR	TBD	TBD	
	REMOVE/REPLACE LIGHTING FIXTURES	TBD	TBD	

B. Preventative Maintenance

Certain treatments will be identified by the steering committee as preventative maintenance treatments. Common data should report road segments on which those treatments were provided so mileage of network subject to treatment can be studied.

C. Service Requests

Disaggregated details about service requests should be reported. All service requests that a participating department determines to be valid (something the department agrees is a real issue requiring department action) should be included. Data captured should allow departments to understand how quickly each request was processed and what the ultimate resolution was (Fixed? Not fixed? Etc.)

D. Pavement Condition

Participating departments will establish a common standard methodology for measuring the condition of paved and unpaved roads in their networks. One candidate is the “present serviceability rating” (PSR), which is widely used, does not require specialized equipment, and is easy to incorporate into an annual windshield survey. Other potential measures may be considered, such as international roughness index (IRI), DOT 10-point rating, PASER, and Pavement Condition Index (PCI). System should provide means of capturing a variety of ratings and a means of “cross-walking” rating systems, if the steering committee approves a method to convert from one rating system to another. It should be possible to compute a mileage weighted index for part or all of a road network.

Exhibit E. Characteristics of Participating Departments

The table below specifies some characteristics of prospective participating municipalities.

Dimension	Dutchess County	City of Beacon	Town of Fishkill	Town of Milan	Town of Pawling	Town of Red Hook	Town of Rhinebeck
Population	297,395	15,514	22,107	2,370	8,463	11,319	7,548
Mileage	393	51	57	52	53	58	57
Office Staff ¹	6	1	3	1	1.5	2	2
Crew Staff	65	24	9	4.5	8	8	7
Crews ²	8	4	3	1	2	2	2
MS4 Status	yes	yes	yes	no	yes	no	no
In-house IT	yes	yes	yes	no	no	no	no

¹ Includes department head.

² Number of work crews typically deployed by department in the field

Exhibit F. Proposal Cost Format

Applicants are required to submit the following information electronically. The following pictures of the forms for One-Time and Annual Costs, Application Software Information, Required Equipment, Peripheral Software Requirements and Component Pricing are for informational purposes only.

A. One-Time and Annual Costs

Town of Fishkill Enterprise Content Management System		11/02/16	
One-Time Costs and Ongoing Costs Proposal Form RFP # 16-003			
The Undersigned, having carefully examined the HDP RFP, does hereby agree to furnish and deliver to the Town the following Services at the price(s) indicated.			
<u>One-time Cost Components</u>	<u>Required Modules</u>	<u>Optional Modules</u>	<u>TOTAL</u>
a. PM, Installation, Implementation, Integration and Training	\$ _____	_____	\$ _____
b. Development of Uniform Coding Database	\$ _____	_____	\$ _____
c. Data Conversion	\$ _____	\$ _____	\$ _____
d. Server Support (Local, Hosted or Cloud)	\$ _____	_____	\$ _____
e. Mobile Hardware	\$ _____	_____	\$ _____
f. Other Costs Not Included Above	\$ _____	\$ _____	\$ _____
TOTAL - One-time Cost Components	\$ _____	\$ _____	\$ _____
<u>Ongoing Annual Costs</u>			
g. HDP Software Maintenance/Support	\$ _____	\$ _____	\$ _____
f. OS / Database / Products Maintenance	\$ _____	\$ _____	\$ _____
h. Other Costs Not Included Above	\$ _____	\$ _____	\$ _____
TOTAL - Annual Costs	\$ _____	\$ _____	\$ _____
Company: _____			
Signature: _____			

F. Component Pricing

Town of Fishkill Highway Data Project Component Pricing		
RFP # 16-003		11/02/16
PILOT COMPONENTS	ESTIMATED HOURS	COST
1. Project Management, Installation, Implementation and Integration		
2. Data Conversion		
3. Training for staff at the five participating municipal agencies		
4. Maintenance / Support for YOUR Software		
5. Maintenance / Support for Operating System, Database and Other Products		
6. Development of data integration with local finance software		
The above components are defined in the RFP. Responders are free to modify the Pilot Components in order to more accurately convey their particular work items.		

Exhibit G. Vendor Questionnaire

Prepare responses in numbered format corresponding to the following questions:

1. Please provide the following information about your company, experience and services. Respond to each item and provide supporting documentation and/or exhibits as requested or desired.
2. Company Name Address Telephone Number Fax Number Email Address, name of contact and name of person with the authority to execute contracts.
3. Describe your company's purpose, mission and values and explain how they will support the relationship with the Town's objectives for this RFP.
4. Provide a history of your company and the proposed software.
5. Describe the professional staff available for development, training, implementation, and support services. Include their qualifications and experience.
6. Describe special staffing resources available in the areas of overall fleet management, equipment maintenance, and other management tasks.
7. Describe general characteristics that differentiate your company from others in the industry. Include any special advantages your services and system provides.
8. Describe how they support decision-making, streamlining tasks, and error reduction to support more productive fleet personnel.
9. Describe your installed base of customers and provide a complete customer list.
10. Provide a list of five (5) clients similar to the participating departments where your software and services are currently utilized with preference to those in relatively close proximity to our location. Include contact information.

Exhibit H. Contract Information

INSURANCE REQUIREMENTS

The Contractor will be required to provide proof of insurance as set forth below:

- A. Prior to commencement of any work under this Contract and until completion and final acceptance of the work, the Contractor shall as its sole expense, maintain the following insurance on its own behalf, and furnish to the Owner Certificates of Insurance evidencing same and reflecting the effective date of such coverage as follows:
- a. **Commercial General Liability Policy**, with limits of no less than \$1,000,000 per occurrence and \$2,000,000 in aggregate for Bodily Injury and Property damage which shall not exclude coverage for:
 1. Products/Completed Operations;
 2. Independent Contractors;
 3. Commercial General Liability and Auto Liability

A per-job site endorsement shall be in force. Self-insured retentions in excess of \$25,000 per occurrence or claim shall be stated on the certificate of insurance or policy endorsement provided as proof of insurance. Owner reserves the right to require proof of financial security on larger self-insured retentions or deductibles.

- b. **Automobile Liability**: hired and non-owned liability coverage along with specific coverage for any owned or leased vehicle used at job site in the amount of \$1,000,000 for Bodily Injury and .or property Damage.
 - c. **Umbrella Liability** with limits of no less than \$5,000,000 per occurrence and in aggregate on a follow-form or better basis over underlying General, Auto Liability, Employer's Liability and, if applicable, Professional Liability.
 - d. **Worker's Compensation and Employers Liability Policy**. New York statutory coverage. A minimum of \$1,000,000 each claim, \$1,000,000 per disease and in aggregate shall be provided for Employers liability coverage. Worker's Comp C-105.2 or CE-200 exemption form is required. SI-12 form is required if self-insured.
 - e. **Disability Insurance**: New York statutory coverage. Provide DB-120.1 form or if exempt, a CE-200 form. DB-155 is required if self-insured.
 - f. **Professional Liability** (if applicable) with limits no less than \$1,000,000.
 - g. **Environmental Impairment Liability**: If the contract requires handling, abating, or transporting or migrating hazardous or toxic substances of any type, including but not limited to fuel oil, with limits not less than \$5,000,000 per occurrence and in aggregate for Bodily Injury, Property damage and Clean Up and Removal.
- B. The Town of Fishkill and its assigns, officers, employees, representatives and agents shall be named as an "Additional Insured" on the General Liability and Auto Liability policies and the Certificates of Insurance shall show this applies to the General Liability and Auto Liability coverage on the certificate. For items a,b,c,f and g above ACORD certificate or equivalent is required. The certificate of insurance shall provide that ten (10) days written notice prior to cancellation or expiration shall be given to the Town of Fishkill.

- C. Cancellation of insurance or failure to renew insurance, if such occurs prior to the commencement of work or during the performance of work under this contract, shall constitute a material breach of contract if not cured as described in paragraph D below. If Contractor is notified by its insurer that Contractor's general liability policy has been cancelled or will be cancelled any time within the next thirty (30) days for any reason including but not limited to non-payment of premiums, Contractor shall immediately cease all work under this agreement, and shall give the Town of Fishkill same day or next day business day written notice of such cancellation or threatened cancellation by personal delivery of such notice to the Town Clerk. A copy of such written notice shall also be sent to the Town Attorney by personal delivery, email or facsimile transmission. Failure to provide such notice as provided herein shall constitute a material breach of contract and in such event the Town of Fishkill may in its sole discretion withhold any payment otherwise due under contract. The Town of Fishkill reserves the right, as a condition of final payment or any installment payment, to require the Contractor to provide proof that Contractor maintained the required insurance throughout the performance of the work to be performed under this agreement.
- D. Any policy that lapses, expires or is cancelled during the term of the work shall be renewed, and proof of such renewal shall be sent by the Contractor and received by the Town of Fishkill no less than ten (10) days prior to lapse, expiration or cancellation of the original policy.
- E. The Town of Fishkill reserves the right to request copies of actual policies and endorsements to verify coverage.
- F. The term "Contractor" shall mean and include Subcontractors of every tier.
- G. Each insurance policy shall be written on a primary and non-contributing coverage basis, including any self-insured retention.
- H. Tools and equipment: Contractor is responsible for insuring the value of the Contractor's own tools, equipment and materials brought, stored or operated at the job site. The Town of Fishkill is not responsible if any of these items is lost, stolen or destroyed.
- I. To the extent permitted by New York law, the Contractor waives all rights of subrogation or similar rights against Town of Fishkill, assigns, officers, employees, representatives and agents.
- J. The cost of furnishing the above insurance shall be borne by the Contractor. There will be no direct payment for this work. Cost will be deemed to have been included in the price bid or proposed for all scheduled items.
- K. Each policy of insurance shall contain clauses to the effect that such insurance (except NYS Disability, Worker's Comp, and professional liability insurance, if any) shall be primary without right of contribution of any other insurance carried by or on behalf of the Town with respect to the Town's interest. Notwithstanding anything to the contrary, Contractor irrevocably waives all claims against the Town for all losses, damages, claims or expenses resulting from risks that are commercially insurable, but Contractor's provision of insurance coverage shall not limit in any way Contractor's liability under this agreement.
- L. Failure to provide insurance, lack of insurance or inadequate limits of insurance does not limit in any way Contractor's obligations to reimburse insured parties.
- M. Any accident shall be reported to the office of the Town Supervisor as soon as possible and no later than 24 (twenty-four) hours from the time of such accident. A detailed written report must be submitted to the Town of Fishkill as soon as possible and not later than 3 (three) days after the date of such accident.



Town of Fishkill
Indemnification and Hold Harmless Agreement

To the fullest extent permitted by law, Contractor/Subcontractor will indemnify and hold harmless the Town of Fishkill, its officers, representatives, agents and employees from and against any and all claims, suits, liens, judgments, damages, losses and expenses, including reasonable legal fees and all court costs and liability (including statutory liability) arising in whole or in part and in any manner from injury and/or death of person or damage to or loss of any property resulting from the acts, omissions, breach or default of Contractor/Subcontractor, its officers, directors, agents, employees, and subcontractors, in connection with the performance of any work by or for Contractor/Subcontractor pursuant to any contract, Purchase Order and/or related Proceed Order. Contractor/Subcontractor will defend and bear all costs of defending any actions or proceedings brought against the Town of Fishkill, their officers, representatives, agents and employees, arising in any employee of the Contractor/Subcontractor and shall not be limited in any way by an amount or type of damage, compensation, or benefits payable under any applicable worker's compensation, disability benefits or other similar employees benefit act.

The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of law or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of law, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis. Indemnification under the contract shall operate whether or not Contractor or its Subcontractors have placed and maintained the insurance required under the contract.

The Contractor/Subcontractor hereby expressly permits the Town of Fishkill to pursue and assert claims against the Contractor/Subcontractor for indemnity, contribution and common law negligence arising out of claims for damages for death and personal injury.

Company: _____

Name: _____

Title: _____

Signature: _____ Date: _____

Nature/Scope of Work Being Performed: _____