



V-E-1

## TOWN AND VILLAGE OF HARRISON ENGINEERING DEPARTMENT



Alfred F. Sulla, Jr. Municipal Building  
1 Heineman Place  
Harrison, New York 10528

Michael J. Amodeo, P.E., CFM  
Town/Village Engineer

March 7, 2014

Mayor Ron Belmont and  
Members of the Village Board  
Village of Harrison  
1 Heineman Place  
Harrison, New York 10528

Re: Professional Services Contract  
Pavement Management System

Dear Mayor Belmont and Members of the Village Board:

The Town owns and maintains approximately 100 miles of roadway. It costs approximately \$200,000 to resurface each mile of roadway using traditional pavement methods. Capital resurfacing allowances for the last five years average about \$500,000, yielding roughly 2.5 miles per year. This rate yields a cycle of 40 years to address all of our roads; far exceeding the typical useful life for a roadway.

Due to these limiting factors, a substantial increase in planning, organization and analysis, along with more cost effective pavement applications must be utilized in order to maximize the Town's available financial resources.

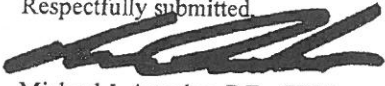
To accomplish this, Pavement Management Systems are utilized to provide a comprehensive process to systematically organize and analyze substantial amounts of inspection data about the condition of our roadways. This will allow us to strategize the most cost effective ways to extend the life of the Town's roadway system and prioritize street maintenance so as to minimize the effects of long-term deterioration.

Consultants offer services that could develop this pavement management system for the Town. Through these services, the physical condition of each road gets evaluated, and a database is established that includes a condition rating and a recommended course of action for each roadway segment. A computer based system then gets configured that is integrated with the Town's GIS (Geographic Information System). Using this, the consultant then produces analytical reports detailing roadway prioritization, pavement applications and multi-year budgetary scenarios, while providing training for our staff.

I would like to request the Board's consideration of this system. I have attached the proposal for your reference.

If acceptable, we would like to request authorization for this contract at the March 20, 2014 Village Board Meeting.

Respectfully submitted,



Michael J. Amodeo, P.E., CFM  
Town/Village Engineer

MJA/fmb

Attachment

G:\Pavement Management\Pavement Management System to Board 022114.docx



February 20, 2014

Michael Amodeo, P.E., C.F.M.  
Town Engineer  
Town/Village of Harrison  
1 Heineman Pl  
Harrison, NY 10528

Re: Pavement Management Proposal

Dear Mr. Amodeo,

Vanasse Hangen Brustlin, Inc. (VHB) is pleased to provide the following proposal for the implementation of a Pavement Management System in the Town/Village of Harrison. VHB has successfully implemented pavement management systems for over 100 municipalities in the Northeast US and has had great success in helping them to prioritize pavement improvements and justify funding increases. Some local references for you include:

- Drew Berndlmaier, City of Norwalk, CT, (203) 854-7791
- Ryan Coyne, Village of Rye Brook, NY, (914) 967-7464
- Kevin Roseman, Westchester County, NY (914) 995-4084

**Proposed Scope and Fees:**

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**1.0 RoadManager GPMS™ Implementation\*\***

VHB will implement the RoadManager GPMS™ (Geographic Pavement Management System) for the Town.

For the pavement management data to be displayed through the GIS interface, the system requires a GIS "Route System" which is a pavement centerline with a linear referencing system upon which the pavement inventory is built. The best available roadway centerline file as determined by VHB and the Town will be used as the basis of the route system.

VHB will pre-populate a pavement management database with available roadway data, in preparation for the field data collection phase.

After the data collection and analysis phases (Tasks 2 and 3), VHB will install the system on Town computers and train Town staff on its use. Topics of the training will include, but are not limited to, data entry/editing, budget analysis, and reporting. VHB will also provide hands-on work sessions to assist the Town with budget development and reporting. This estimate budgets for two 4-hour training and work sessions to be used at the town's discretion. The fee for this task includes preparation and travel for each session.

One the same day as the initial training session, VHB will install and test the system on designated Town computers. Our proposed services also include 10 hours of technical support, to be used via

phone, email, or site visits within one year of software installation. VHB will make any program updates available to the town via VHB's pavement management support website.

Task	Estimated Task Cost
Create GIS Route System	\$1,700.00
Prepopulate Pavement Database	\$1,100.00
Software Installation and 2 Training Sessions	\$2,400.00
Software Support	\$1,250.00
	<b>\$6,450.00</b>

\*\*Completion of the above tasks is contingent upon the attached software and hardware requirement being met prior to VHB's installation of the system, and to all users being trained having had some previous training or experience with ArcGIS.

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## 2.0 Pavement Condition Ratings

VHB will develop the new pavement database. The first step in the field is to develop the pavement management network by confirming the street list and creating pavement management segments based on pavement condition, geometry, and other factors. For each pavement management segment, a number of attributes will be recorded including pavement type, functional classification, and width.

VHB will perform pavement condition ratings on the road network. Ratings will be done using the RoadManager™ rating system in which the extent and severity of 9 classes of pavement distresses are measured in the field. The survey data will be entered into the Town's new pavement management database. A minimum of 10% of the data collected will be field checked by a senior level pavement engineer for quality assurance.

Task	Estimated Cost
Pavement Condition Ratings (Estimated. 100 miles)	\$21,500.00

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## 3.0 Meetings, System Configuration, Analysis, Reporting and Presentation

VHB will attend three project meetings. The first meeting will be a project kickoff meeting at which details of the field evaluation process will be discussed as well as a review of the scope, schedule, and goals of the project. The second meeting will be in regard to system configuration and the use of roadway condition and attribute data to trigger specific repair alternatives. Repair alternative costs will also be developed during this meeting. The third meeting is a review of the system configuration and modeling used by the system.

VHB will allot 16 hours of office time for data entry of new attribute data and adjustment of the system configuration as determined at the project meetings.

VHB will also allot 40 hours to be used for analysis and preparation of reports related to summarizing roadway conditions, analyzing budget scenarios, and preparing road programs.

VHB will prepare and perform a public presentation of the results of the survey. Key concepts from the project report will be presented. The town will have opportunity review materials prepared for the presentation (i.e., Microsoft PowerPoint Presentation) and request revisions.



Task	Estimated Task Cost
Meetings and Data Preparation (3)	\$3,200.00
System Configuration	\$2,000.00
Analysis and Reporting	\$4,200.00
Public Presentation	\$1,800.00
	<b>\$11,200.00</b>

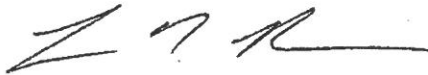
### Cost Summary

Task	Fee
1.0 Road Manager <i>GPMS</i> <sup>TM</sup> Implementation	\$6,450.00
2.0 Pavement Condition Ratings	\$21,500.00
3.0 Meetings, System Configuration and Reporting	\$11,200.00
<b>Total Estimated Cost</b>	<b>\$39,150.00</b>

If you have any questions, please feel free to contact me at [lbaden@vhb.com](mailto:lbaden@vhb.com) or (617) 607-1866.

We look forward to the opportunity to perform this important project for the Town/ Village of Harrison!

Sincerely,



Lance Baden, Project Manager- Pavement Engineering Services  
Vanasse Hangen Brustlin, Inc.

