



January 12, 2016

Michael J. Gallagher, PE
Deputy Director of Public Works
Town of Vienna
127 Center St. S
Vienna, VA 22180

Re: Nutley Street and Marshall Road Culvert Replacement: Scope Amendment #2

Dear Mr. Gallagher:

Whitman, Requardt & Associates, LLP (WRA) is pleased to submit this scope amendment proposal for the above-mentioned project as outlined below.

I. ADDITIONAL SCOPE OF WORK

1. Evaluating Tailwater Conditions at the County Pond: This work element was undertaken early in the project, when it was realized how significantly constrictions at the pond, and its outlet, influence flooding in the Marshall Road neighborhood area. From a technical standpoint, capital improvements at the pond could be equally effective, and potentially at lower cost, when compared to replacement of the Nutley Street culverts. Although pond construction represents a technically feasible alternative for improvement of flooding conditions, it was deemed politically impractical, and was dropped from further consideration (\$610.00).
2. Coordination with Homeowners: The replacement culvert option initially considered included a dual precast concrete box culvert of standard construction. The homeowners adjacent to the culvert identified concerns with loss of property value and hazards related to local youths entering the box culverts. The Town requested us to coordinate with the homeowners to provide a safer, more attractive culvert arrangement. An aluminum arch culvert was selected along with dressed headwall. The effort included on-site meetings with the homeowners, identification of suitable products, and coordination with VDOT to show the VDOT reviewers that the proposed products meet the requirements of their Road and Bridge Standards (\$3,660.00).
3. Coordination Meetings with VDOT: We understand that VDOT is non-jurisdictional in the matter of this culvert and the roadway over the culvert. At the same time, their jurisdiction begins a very short distance from the culvert replacement project. Both traffic issues and stormwater hydraulic issues created by the Town's project could impact VDOT within their jurisdiction. Although they have indicated this project is non-jurisdictional, and only needs a Land Use Permit issued by VDOT, they have been involved in review of the project, as a concerned agency, with impacts to the traffic plan (7 phase construction plan) and hydraulic design.
 - a. Traffic Management Plan – Originally, we developed the project plans on the basis of a three phase traffic management plan. With the volume of traffic being handled at this location, and the potential impact on VDOT, the plan was reconsidered and a seven phase traffic management plan was proposed as an alternative. All parties agreed that the seven phase plan would result in somewhat longer construction time, but would lessen the burden on the traveling public. The seven phase plan was approved by VDOT (\$1,464.00).
 - b. Hydraulic Design – The storm water analysis for this project was initially conducted using SCS drainage calculations provided by Wiley & Wilson and HY-8 culvert analysis in the area of the project work. At a project meeting on June 11, 2015, VDOT indicated that we would not receive

the required Land Use Permit for the project without having additional support information for the development of the drainage numbers and storm water analysis via a HEC RAS model. The formal analysis and the model were developed and showed minor variations in the results. The information has been forwarded to VDOT for their approval (\$5,938.00).

- c. Scour Analysis – The scour analysis for this project has been requested by VDOT. The formal analysis will be developed and the calculations will be presented to VDOT for their review and approval (\$7,860.00).

II. PROJECT SCHEDULE

We anticipate construction of the project to start in summer of 2016 for a construction duration of 6 months.

III. ESTIMATED FEE

The fee for this project is based on the payroll factor and direct expense rates contained in our Contract Agreement. The man-hours to perform this work are detailed in the Proposal Worksheet, Attachment A. The total requested supplement is \$19,532.00. We trust that this information is satisfactory and request that the Town increase the WRA project budget from \$79,178.20 to \$98,710.20.

Very truly yours,

Whitman, Requardt & Associates, LLP



Junaid Malik, P.E.
Senior Project Engineer

Enclosures

Town of Vienna Task Order Contract
Nutley Street and Marshall Road Culvert Replacement Project: Scope Amendment 2

COST PLUS BILLABLE HOURLY RATES CONTRACT

A.	DIRECT LABOR, ESCALATION, PAYROLL BURDEN, FEE Est. Man-hours X Fixed Billable Hourly Rates	\$19,532
B.	NONSALARY DIRECT COSTS, ESTIMATE	\$ -
C.	SUB-CONSULTANT FEES BC Consultants Easement Plats (assume 3 @ \$1,775)	\$ - \$ -
D.	TOTAL ESTIMATED COST PLUS FIXED FEE (A+B+C)	\$ 19,532.00
E.	CONTINGENCY	\$ -
F.	LIMITING FEE (MAXIMUM TOTAL COMPENSATION) (D+E)	\$ 19,532.00

Town of Vienna Task Order Contract
Nutley Street and Marshall Road Culvert Replacement Project: Scope Amendment 2

COST PLUS BILLABLE HOURLY RATES CONTRACT

COMPUTATION OF SALARY, PAYROLL BURDEN AND FEE

	<u>HOURS</u>	<u>RATE</u>	<u>AMOUNT</u>
VICE PRESIDENT	0	<u>\$164.00</u>	<u>\$0</u>
SENIOR PROJECT ENGINEER	80	<u>\$122.00</u>	<u>\$9,760</u>
PROJECT ENGINEER	72	<u>\$111.00</u>	<u>\$7,992</u>
DESIGN ENGINEER	20	<u>\$89.00</u>	<u>\$1,780</u>
ENGINEER	0	<u>\$83.00</u>	<u>\$0</u>
DESIGNER	0	<u>\$82.00</u>	<u>\$0</u>
TOTAL	<u>172</u>	<u>NA</u>	<u>\$19,532</u>