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CranberryTownship.org 🌐

MEMO

To: Dan Santoro, Township Manager/Secretary **Date:** 2.21.2023

From: Mike Malak, Director, Eng./Environmental Serv.

MS4 Stream Restoration Project

Re: Phase I - Archaeological and Geomorphological Survey

The Township has hired Wallace Pancher Group (WP) to perform the site design, permitting and construction consulting services for the MS4 Stream Restoration Project. The stream restoration project consists of restoring the stream through the residential developments of Cedarbrook, Manor Creek Farms, Glenbrook Manor and Settlers Grove.

WP has been working over the past few months with the Pennsylvania Department of Environmental Protection Agency and the U.S. Army Corp of Engineers on securing the permit. The Army Corps informed the Township that they cannot issue Federal authorization until they have approval from the Pennsylvania Historical and Museum Commissions (PHMC). The PHMC is requiring a Phase 1 archeological study be performed.

The Township has received a quote from WP for hiring Christine Davis Consultants, Inc. to assist them with the preparation of the Phase I Archeological Investigation of the site. The scope of this proposal includes preparing a Survey Report according to the Guidelines for Archaeological Surveys, which will include photographs, maps, and all other required data to satisfy the reviewing agency.

The Engineering Department has reviewed the proposal received from Wallace and Pancher, Inc's and determined that the additional scope of work is acceptable. Therefore, it is my recommendation that the design for the stream restoration project be awarded to Wallace and Pancher, Inc. in the amount of \$27,365.13.

TJS

I:\Engineering\Stream Restoration\2021 Project\Wallace Pancher Group\Agreements\purchase.justification.MS4 Stream Restoration-Serv.WallacePancher.2 21-2023-rev-memo phase I study.docx



WallacePancher Group Project Modification Request (PMR)

Client: Cranberry Township
2525 Rochester Road, Suite 400
Cranberry Township, PA 16066-6499
Attn: Mr. Timothy Schutzman
Project: Brush Creek Tributary Stream Restoration
Project #: 21711

Modification #: 1

Prepared by: Joseph DiFiore

Date: 2/3/2023

Client Purchase Order # 2021365-00

Description of additional work:

PMR#1 - Phase 1 Archaeological and Geomorphological Survey

Scope of Services: See Exhibit "A"

Cost Breakdown:

A. Geomorphological Survey: \$3,634.25

B. Phase 1 Archaeology: \$23,730.88

Our billing method and other terms and conditions remain per our original agreement.

Original Contract Amount: \$285,597.98

Previous Contract Modification(s): \$0.00

Total Amount of this Modification: \$27,365.13

New Contract Total: \$312,963.11

Client Approval

Approval Signature: 

Date 2/10/2023

Title: Waterworks Coordinator

WallacePancher Group

Authorized Signature: 

Date 2/15/2023

Title: Principal

Engineering, Environmental, and Landscape Architecture Professionals

Exhibit "A"

Brush Creek Tributary Stream Restoration (21711) PMR#1 - Phase 1 Archaeological Geomorphological Survey

A. Phase I Archaeological and Geomorphological Survey

WPG had secured a waiver from PADEP regarding coordination with PA State Historic Preservation Officer (SHPO) for the Chapter 105 Waiver 16 request. PADEP initiated coordination with US Army Corp of Engineers (USACE) and the USACE initiated coordination with SHPO. A letter from SHPO dated December 30, 2022 indicates that while there is no concern for above ground resources, a Phase I archaeological survey was requested.

A review of the PA Share system revealed that the Brookside Site (36BT0234) is recorded within the project area and there are additional sites nearby. Alluvial soils are present so a geomorphological survey is required.

WallacePancher Group (WPG) has retained the services of Christine Davis Consultants, Inc. (CDC), a prequalified archaeology firm with the SHPO to perform these services. WPG will coordinate with CDC on the performance of the Archaeological and Geomorphological Survey and report

SCOPE OF WORK

Phase I Archaeological and Geomorphological Survey

Archaeological investigations are conducted in accordance with the *Guidelines for Archaeological Investigations* prepared by the PA SHPO in October 2021.

Relevant historic research and mapping of the specific project area will be examined to determine the potential for archaeological resources within the project area. Pennsylvania's State Historic and Archaeological Resource Exchange (SHARE) will be examined to provide information about previously conducted cultural resource surveys and previously documented archaeological and historic resources within and near the project area.

The PA SHPO Guidelines require a qualified geomorphologist to perform a survey and provide recommendations for all projects that have alluvial soils with the potential for deeply buried archaeological deposits. The project area contains alluvial soils. CDC has an on-staff geomorphologist who will prepare the survey and establish the depth of excavation. From the results of this survey, an archaeological testing plan will be prepared.

For the remainder of the project area, where ground surface visibility is less than 80 percent, slopes are less than 15 percent and no surface indication of previous impacts is present, shovel test probes

(STPs) will be conducted at 15-meter (m) intervals. For deeper alluvial soils one (1) meter square units will be conducted at 30-meter intervals. Any ground disturbances will be delineated through field reconnaissance and/or testing at 30 m intervals. STPs will be 0.5 by 0.5 m in size and units will be 1 m x 1 m and will be excavated in 10 centimeter (cm) levels to undisturbed subsoil. Each probe will be excavated to a minimum depth of 10 cm below the A horizon or the deepest cultural component. All soils will be screened through quarter-inch hardware cloth, and all shovel tests will be backfilled.

Deliverables

If no potentially significant archaeological sites are found, the results of the Phase I Survey will be compiled into a Negative Survey Report according to the *Guidelines for Archaeological Surveys*. The report will include photographs, maps, and all other required data. The document will be submitted as a draft report for review and comment. Upon approval, one copy of the document will be uploaded to the PA SHPO for review and concurrence.

If An Archaeological Site Is Found

If artifacts are found in one or more STPs, additional work will be required, and a supplemental scope of services and cost proposal will be submitted. Initially, reduced interval testing in the four cardinal directions at 5 m intervals will be performed around the STP(s) where the artifacts were found to ensure against isolated finds. If the site is located in alluvial soils radial testing will be completed with units. The data that is gathered will be analyzed. If a potentially significant archaeological site is identified, all field information generated during the survey will be mapped using GPS and the results plotted on location maps using AutoCAD Map 3D 2022. CDC will submit the location map for review and discussion to determine if the site or area can be avoided. A supplemental cost proposal will be submitted for the completion of a Pennsylvania Archaeological Site Survey (PASS) form, a full Phase I report, and other documentation that will need to be prepared for each identified archaeological site. A separate fee for the permanent curation of artifacts and/or documentation will be determined. If avoidance is not a viable alternative, a Phase II Archaeological Survey may be necessary. In this case, a Phase II Work Plan and fee will be prepared.

COST PROPOSAL

The not-to-exceed cost below includes all direct payroll costs, overhead, and fee at a not to exceed cost based on the following assumptions:

Assumptions

- Limit of Disturbance is approximately 8.9 acres
- It is assumed that site is accessible by foot
- 23 units estimated at 1 meter in depth
- 8 STPs estimated at 60 cm in depth
- Assumes work is completed when ground is not frozen, and soils are not saturated.
- The geomorphological survey will determine the final scope of work which may be more or less than the estimated amount.

WallacePancher Group

Billing Rates (2023)

Principal Engineer	\$220.00
Senior Environmental Scientist	\$165.00

Geomorphology Survey and Report

Classification	Hours	Cost
Principal Engineer	3.5	\$770.00
Senior Environmental Scientist	1.5	\$247.50
Total	5	\$1,017.50

Phase 1 Archaeology

Classification	Hours	Cost
Principal Engineer	8	\$1,760.00
Senior Environmental Scientist	7	\$1,155.00
Total	15	\$2,915.00

CHRISTINE DAVIS CONSULTANTS, INC.

2023 LOADED HOURLY RATES PER STAFF CATEGORY

Principal Investigator	\$136.85
Senior Project Manager	\$100.35
AutoCAD/GIS	\$100.35
Cultural Resource Specialist	\$72.38
Sr. Field Supervisor	\$55.95
Field Supervisor	\$41.40
Crew Chief	\$41.40
Field Crew 1	\$38.89
Field Crew 2	\$37.63
Geomorphologist	\$89.54

Fieldwork:

Hours

Sr. Field Supervisor	50	\$2,797.50
Field Supervisor	100	\$4,140.00
Crew Chief	100	\$4,140.00
Field Crew 1	100	\$3,889.00
Field Crew 2	50	\$1,881.50

Analysis/Report:

Senior Project Manager	12	\$1,204.20
Auto CAD/ GIS	16	\$1,605.60
Cultural Resource Specialist	16	\$1,158.08

20,815.88

Geomorphology Survey and Report

Senior Project Manager	3	\$ 301.05
Auto CAD/ GIS	3	\$ 301.05
Geomorphologist	22.5	\$2,014.65

\$2,616.75