

**AMENDMENT NUMBER 1 TO
WORK STATEMENT NO. 2
BETWEEN
SPALDING DEDECKER ASSOCIATES, INC. (SPALDING)
AND
THE CITY OF ANN ARBOR
FOR THE
BOARDWALK DRIVE CULVERT AND STREAM EROSION PROJECT**

The City of Ann Arbor, a Michigan municipal corporation, with offices at 301 E. Huron St. Ann Arbor, Michigan 48107-8647 (“City”) and Spalding DeDecker Associates, Inc. (“Contractor”) a Michigan Corporation with its address at 905 South Blvd. East, Rochester Hills, Michigan 48307 (“Contractor”) agree to amend Work Statement No. 2 for the Boardwalk Drive Culvert and Stream Erosion Project dated August 11, 2022 (“Agreement”) as follows:

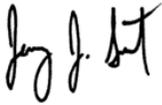
- 1) Statement Specifications, Paragraph A, Work to be performed/Deliverables. The referenced Attachment A is replaced with the First Amended Exhibit A included in this document.
- 2) Statement Specifications, Paragraph D, Compensation. The referenced Attachment B is replaced with the First Amended Exhibit B included in this document.

All terms, conditions, and provisions of the original Agreement between the parties executed June 16, 2022 and the original Work Statement No. 2 dated August 11, 2022, unless specifically amended above, shall apply to this Amendment and are made a part of this Amendment as though expressly rewritten, incorporated, and included herein.

This Amendment to the Agreement between the parties shall be binding on the heirs, successors, and assigns of the parties.

Dated this _____, 2023.

For Contractor

By  06/05/2023

Jeremy J. Schrot, PE
Its Vice President

For City of Ann Arbor

Approved as to substance

DocuSigned by:
 6/9/2023

82ABAD58D386491...
Milton Dohoney Jr,
City Administrator

DocuSigned by:
 6/8/2023

36AF51CAD738483...
Brian Steglitz,
Public Services Area Administrator

Approved as to form and content

DocuSigned by:
 6/9/2023

627306898F804DD...
Atleen Kaur, City Attorney

EXHIBIT A

FIRST AMENDED SCOPE OF SERVICES

PROJECT UNDERSTANDING

The existing drain along the Ann Arbor Railroad near 2400 Boardwalk Drive is a fairly substantial drain that appears to take from flow from as far south as Ellsworth Road. The drain is not listed as a Washtenaw County drain, but more likely than not has a drainage area greater than 2 square miles as it ultimately discharges into an enclosed 90-inch storm system. The 90-inch enclosed storm system ultimately outlets to the Pittsfield #3 Washtenaw County Drain just east of S. Industrial Highway.

The drain has experienced some significant erosion that is now threatening the existing railroad tracks as well as a nearby bus storage yard. The goal of this study will be to determine the cause of the erosion as well as provide mitigation alternatives for review and discussion with the City. The following is our anticipated scope of services.

PHASE 1 (PRELIMINARY ENGINEERING/HYDRAULIC STUDY) SCOPE OF SERVICES

The proposed scope of services includes:

- Topographic Survey – From the Eisenhower Parkway Bridge to the 90-inch enclosed drain including the following:
 - Ten (10) Channel Cross Sections
 - Channel Centerline
 - Utility Inverts
 - i. 90-inch drain, outfalls and storm detention outlets
- Erosion Monitoring Data (Long-term monitoring)
 - Install Bank Erosion Pins at the two sites of mass erosion
 - i. At the Railroad Tracks and at the northwest corner of the bus yard
 - Install two (2) in-channel transducers
 - Install trail camera overlooking the drain
- SWMM Modeling which will evaluate the following:
 - Flow velocities
 - Water Elevations
 - Shear Stress
 - Return interval for each of these characteristics
- Wetland Delineation
 - EGLE Wetland Map Viewer identifies an area that may impact future mitigation efforts as wetland and should be identified
- Alternatives Feasibility Technical Memo
 - Provide three (3) Concept Level alternatives with a cost-benefit analysis for each
 - Summary of potential permitting requirements

- Discussion of possible Land Acquisition (as necessary)

Assumptions:

1. SD will not perform a (TR-55 or other) hydrology analysis as part of this effort. Hydrology estimates will be based on results generated by an EGLE discharge request as this drain may have a watershed greater than 2 square miles. Should EGLE refuse to provide reasonable flow estimates for the project, SD can generate flow estimates for an additional cost.
2. The feasibility of the alternatives will be based on cost, site spacing limitations and natural channel design requirements. Soil borings are not included in this proposal at this time but will be incorporated at a future design phase for an additional fee.
3. This study will not include an assessment of potential Threatened or Endangered Species or SHPO concerns.
4. This phase of the project will not include the preparation of review agency permit applications (EGLE, FEMA, Road Commission, Railroad, Drain Commission, or other). The potential permits will be identified in the Technical Report, but the actual permits will be addressed at design phase.

**PHASE 2 (DESIGN ENGINEERING)
SCOPE OF SERVICES**

As discussed in the hydraulic study, water along the ditch approached the junction chamber from both the north and south. Flows from the north do not have a means to enter the 90-inch culvert and over time, the water has diverted around the culvert and enters the junction chamber from the south. This has created deep gulleys and erosion near the railroad embankment. It was recommended that the damaged 90-inch culvert be replaced with 90-inch tee to create an appropriate entry point for channel flows. In addition to the culvert replacement, the eroded areas will be filled and the channel reinforced with riprap.

Along the south channel, the recommended work includes repairing and reinforcing the top-down erosion at the parking lot. Additional riprap will be installed along the channel, as well as removing large debris in the channel. Lastly, the sediment build up inside the junction chamber shall be cleared to maintain full capacity in the system.

Spalding DeDecker will prepare construction documents, construction plans, and permit applications and assist the City with bidding the project. The work will include:

1. SD will prepare preliminary plans for the construction of the proposed improvements and review the plans with the City. A refined cost estimate will be prepared. Major items associated with the construction plans include:
 - a. Cover Sheet
 - b. Notes and Details
 - c. Removal and Construction Sheets
 - d. Utility Profiles
 - e. Grading Sheets
 - f. City Details (as needed)

2. Permit applications will be completed and plans submitted to required agencies. Expected permits and coordination include:
 - a. NPDES – Notice of Coverage
 - b. SESC
 - c. Railroad ROW Coordination
3. The construction documents will be completed along with the specifications for bidding. SD will assist the City with bidding, including but not limited to, advertising the bid, answering RFI's, facilitating the bid opening, review the submitted bids for completeness and provide a recommendation to the Board for the lowest responsive and responsible bidder.
4. SD will provide the plans to City standards and review with the appropriate staff throughout the project as well as providing internal QA/QC and constructability reviews.

Assumptions:

1. The previous field investigation for the hydraulic study only assessed the junction chamber and the 90-inch culvert within the channel banks east of the railroad embankment. The City will provide any existing CCTV footage of the 90-inch culvert to SD for review to assess the condition of the 90-inch culvert further downstream. If additional sections of pipe need to be replaced, that additional work is not covered under this scope and fee.
2. SD will use the existing topographic survey performed for the hydraulic study. If additional survey is needed, that work is not included under this scope and fee.

SCHEDULE

Project Award	June 2023
60% Plan Review	July 2023
90% Plan Review	September 2023
Permit Submittals	October 2023
Final Plan Review	October 2023
Advertise Project	November 2023
Bid	December 2023
Award	January 2024

EXHIBIT B

**FIRST AMENDED
COMPENSATION**

Compensation Summary:

Hydraulic Study (Original Work)	\$ 67,328.00
Design Phase (Amendment 1)	<u>\$ 44,706.00</u>
TOTAL	\$ 112,034.00