



Department of Management Services
Purchasing Division
241 West South Street
Kalamazoo, MI 49007-4796
Phone: 269.337.8020
Fax: 269.337.8500
www.kalamazoocity.org
cokpurchasing@kalamazoocity.org

VIRTUAL PRE-BID MEETING/INSPECTION on September 22, 2020 @ 10:00 a.m. Local Time
Then proceed to project site at your own pace. Register in advance for this
Zoom meeting: <https://zoom.us/meeting/register/tJ0kcOuhpzIvE92koneFZ15Ozmu4uTekTvuh>

INVITATION FOR BID (IFB)

The City of Kalamazoo, Michigan is soliciting sealed bids for:

Project Name: Milham Park Dam Removal

Bid Reference #: 95939-001.0

IFB ISSUE DATE: September 10, 2020

BID DUE/OPENING DATE: October 6, 2020 @ 3:30 p.m. Local Time

Facsimile Bids Will Not Be Accepted.

MAILING ADDRESS & INSTRUCTIONS

Mail to:

Purchasing Division
241 W. South Street
Kalamazoo, MI 49007

Questions about this IFB should be directed to:

Patrick McVerry, Parks & Recreation
Deputy Director at (269) 337-8147 or
mcverryp@kalamazoocity.org, Ron Myllyoja,
Rob.Myllyoja@stantec.com, Jim Moyer,
Jim.Moyer@stantec.com and Jonathan Scheibly,
Jonathan.Scheibly@stantec.com at Stantec

Include on the Envelope the Project Name and Bid Reference Number. All Envelopes Must Be Sealed.

You are invited to submit a bid for this project. Specifications, terms, conditions and instructions for submitting bids are contained herein. This Invitation for Bid with all pages, documents and attachments contained herein, or subsequently added to and made a part hereof, submitted as a fully and properly executed bid shall constitute the contract between the City and the successful bidder when approved and accepted on behalf of the City by an authorized official or agent of the City. Please review the bid document as soon as possible and note the **DEADLINE FOR QUESTIONS** in the Instructions to Bidders.

All bidders shall complete and return the Bid and Award page(s) and submit all information requested herein in order for a bid to be responsive. The bid document shall be returned in its entirety, in a properly identified and sealed envelope to the Purchasing Division at the above address. **BIDS MUST BE RECEIVED BEFORE THE DUE DATE - LATE BIDS WILL NOT BE CONSIDERED.** The City reserves the right to postpone the bid opening for its own convenience.

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE #</u>	<u>APPENDICES</u>
		Appendix A
I	Statement of No Bid	Appendix B
I	Instructions to Bidders	Prevailing Wages
II	Bid & Award Pages	Specifications
III	Insurance Requirements	Drawings/Plans
IV	Special Requirements	
V	General Provisions	
VI	Terms & Conditions	

STATEMENT OF NO BID

NOTE: If you DO NOT intend to bid on this commodity or service, please complete and return this form immediately. Your response will assist us in evaluating all responses for this important project and to improve our bid solicitation process.

The Purchasing Division of the City of Kalamazoo wishes to keep its bidders list file up-to-date. If, for any reason you cannot supply the commodity/service noted in this bid solicitation, this form must be completed and returned to remain on the particular bid list for future projects of this type.

If you do not respond to this inquiry within the time set for the bid opening date and time noted, we will assume that you can no longer supply this commodity/service, and your name will be removed from this bid list.

- _____ Specifications too "tight", i.e. geared toward one brand or manufacturer only (explain below).
- _____ Specifications are unclear (explain below).
- _____ We are unable to meet specifications.
- _____ Insufficient time to respond to the Invitation for Bid.
- _____ Our schedule would not permit us to perform.
- _____ We are unable to meet bond requirements.
- _____ We are unable to meet insurance requirements.
- _____ We do not offer this product or service.
- _____ Remove us from your bidders list for this commodity or service.
- _____ Other (specify below).

REMARKS: _____

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL: _____

**SECTION I
INSTRUCTIONS TO BIDDERS**

1. **EXAMINATION OF BID DOCUMENT**-Before submitting a bid, bidders shall carefully examine the specifications and shall fully inform themselves as to all existing conditions and limitations. The bidder shall indicate in the bid the sum to cover the cost of all items included on the bid form.
2. **PREPARATION OF BID**-The bid shall be legibly prepared in ink or typed. If a unit price or extension already entered by the bidder on the Bid and Award form is to be altered, it shall be crossed out and the new unit price or extension entered above or below and initialed by the bidder with ink. The bid shall be legally signed and the complete address of the bidder given thereon.

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by Fax machine will not be accepted.

3. **EXPLANATION TO BIDDERS**-Any binding explanation desired by a bidder regarding the meaning or interpretation of the Invitation for Bid (IFB) and attachments must be requested in writing, **at least business 5 days before the bid opening** so a reply may reach all prospective bidders before the submission of bids. Any information given to a prospective bidder concerning the IFB will be furnished to all prospective bidders as an amendment or addendum to the IFB if such information would be prejudicial to uninformed bidders. Receipt of amendments or addenda by a bidder must be acknowledged in the bid by attachment, or by letter or fax received before the time set for opening of bids. Oral explanation or instructions given prior to the opening will not be binding.
4. **CASH DISCOUNTS**-Discount offered for payment of less than thirty (30) days will not be considered in evaluating bids for award. Offered discounts of less than thirty (30) days will be taken if payment is made within the discount period, even though not considered in evaluation of the bid.
5. **WITHDRAWAL OF BIDS**-Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bid. No bid may be withdrawn for at least ninety (90) days after bid opening.
6. **ALTERNATE BIDS**-bidders are cautioned that any alternate bid, unless specifically requested or any changes, insertions or omissions to the terms and conditions, specifications or any other requirement of this IFB may be considered non-responsive, and at the option of the City, result in rejection of the alternate bid.
7. **LATE BIDS**-Any bid received at the office designated herein after the exact time specified for receipt will not be considered. (Note: The City reserves the right to consider bids that have been determined by the City to be received late due to mishandling by the City after receipt of the bid and no award has been made.)
8. **UNIT PRICES**-If there is a discrepancy between unit prices and their extension, unit prices shall prevail.

SECTION II
BID AND AWARD

The undersigned having become thoroughly familiar with all of the bid/contract documents incorporated herein, the project site and the location conditions affecting the work, hereby proposes to perform everything required to be performed in strict conformity with the requirements of these documents, and to provide and furnish all the equipment, labor and materials necessary to complete in a professional manner the furnishing and installing of all of the following, meeting or exceeding the specifications as set forth herein for the prices as stated below.

BID WITH PREVAILING WAGES. This project will be awarded WITH Prevailing Wages.

MILHAM PARK DAM REMOVAL

Item No.	Description	Quantity	Unit	Unit Price	Total Amount
1	Mobilization and Site Prep	1	LS		
2	Construction Barrier Fence (Refer to 02-00-01)	500	LF		
3	Maintenance of Traffic	1	LS		
4	Construction Entrance (Refer to 02-00-02)	60	SY		
5	Construction Layout and Staking (Refer to 02-00-03)	1	LS		
6	Soil Erosion and Sediment Control (Refer to 02-00-04)	1	LS		
7	Sheet pile Weir & Abutment Removal (Refer to 02-00-05)	1	LS		
8	Bulk Earthwork (Refer to 02-00-06)	3700	CYD		
9	Fine Grading (Refer to 02-00-07)	1100	CYD		
10	Brush Toe (Refer to 02-00-08)	257	LF		
11	Toe Wood (Refer to 02-00-09)	100	LF		
12	Variable Constructed Riffles – Includes Sub Pavement (Refer to 02-00-10)	997	SY		
13	Erosion Control Blanket (Refer to 02-00-11)	1050	SYD		
14	Seeding and Mulching Zone 1 (Refer to 02-00-12)	1.7	AC		
15	Seeding and Mulching Zone 2 (Refer to 02-00-12)	2.0	AC		
16	Live Stakes (Refer to 02-00-13)	800	EA		
17	Natural Stone Outfall Stabilization (Refer to 02-00-14)	30	TN		
TOTAL BID AMOUNT:				\$	

ALTERNATE BID WITHOUT PREVAILING WAGES to gather information on the cost of completing projects WITHOUT Prevailing Wages. This project will be awarded WITH Prevailing Wages.

MILHAM PARK DAM REMOVAL

Item No.	Description	Quantity	Unit	Unit Price	Total Amount
1	Mobilization and Site Prep	1	LS		
2	Construction Barrier Fence (Refer to 02-00-01)	500	LF		
3	Maintenance of Traffic	1	LS		
4	Construction Entrance (Refer to 02-00-02)	60	SY		
5	Construction Layout and Staking (Refer to 02-00-03)	1	LS		
6	Soil Erosion and Sediment Control (Refer to 02-00-04)	1	LS		
7	Sheet pile Weir & Abutment Removal (Refer to 02-00-05)	1	LS		
8	Bulk Earthwork (Refer to 02-00-06)	3700	CYD		
9	Fine Grading (Refer to 02-00-07)	1100	CYD		
10	Brush Toe (Refer to 02-00-08)	257	LF		
11	Toe Wood (Refer to 02-00-09)	100	LF		
12	Variable Constructed Riffles – Includes Sub Pavement (Refer to 02-00-10)	997	SY		
13	Erosion Control Blanket (Refer to 02-00-11)	1050	SYD		
14	Seeding and Mulching Zone 1 (Refer to 02-00-12)	1.7	AC		
15	Seeding and Mulching Zone 2 (Refer to 02-00-12)	2.0	AC		
16	Live Stakes (Refer to 02-00-13)	800	EA		
17	Natural Stone Outfall Stabilization (Refer to 02-00-14)	30	TN		
TOTAL BID AMOUNT:		\$			

Bidder shall provide all of the information as requested herein with their bid. **Failure to do so and/or failure to provide post-bid requested information may be cause for rejecting the bid as non-responsive.**

Work shall start within **10** working days after receipt of notification by Contractor of Notice to Proceed, and final completion shall be **May 1, 2021**.

Bidder/Contractor has examined and carefully studied the bidding documents and attachments, and acknowledges receipt of the following addenda:

Addendum No: _____

Dated: _____

By my signature below, I certify that the firm bidding on this contract, when making hiring decisions, does not use a past criminal conviction as a bar to or preclude a person with a criminal conviction from being considered for employment with the bidding firm unless otherwise precluded by federal or state law. I further certify that I have read and agree to be bound by the provisions of the City's Non-Discrimination Clause found in Appendix A as updated by City Ordinance 1856.

Signed: _____ Name: _____

Title: _____

CITY OF KALAMAZOO EX-OFFENDER POLICY CHECKLIST

As part of the City’s commitment to reducing unacceptable poverty, encouraging rehabilitation, reducing recidivism and strengthening families in Kalamazoo, the City has updated its Purchasing Policy to ensure that firms with whom the City does business share in this commitment by utilizing hiring practices that do not unfairly deny people with arrest and conviction records gainful employment. *(Important: This requirement also extends to any subcontractors the bidder intends to use to fulfill the contract for goods or services being sought from the City.)*

Part I: Proof that the bidder does not inquire about an individual’s past arrest or criminal history on the bidders employment application form

- Attach a copy of the current application for employment being used by the bidder

Part II: Certification that the bidder does not use an individual’s past arrest or criminal history to unlawfully discriminate against them by checking *one or more* of the following:

- That pursuant to federal or state law bidder is precluded from hiring persons with certain criminal records from holding particular positions or engaging in certain occupations by providing a cite to the applicable statute or regulation; if checking this box, provide a citation to the applicable statute or rule upon which the bidder is relying: _____
- That bidder conducts criminal history background checks only as necessary, and only after making a conditional offer of employment; that any withdrawal of an offer of employment to an individual because of a past criminal history is job-related and consistent with business necessity after the individual has been provided an individualized assessment opportunity to review and challenge or supplement the history of past criminal conduct being relied upon by the bidder;
- That the use by bidder of criminal history background checks complies with the U.S. Equal Employment Opportunity Commission’s Enforcement Guidance on the Consideration of Arrest and Conviction Records in Employment Decisions and that the bidder has not had a determination rendered against it in past 7 years that it discriminated against a person through the use of an individual’s arrest or criminal history

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.

Date

Signature

Printed Name

Position

**CITY OF KALAMAZOO
LOCAL PREFERENCE POLICY AND CERTIFICATION**

The lowest responsive Kalamazoo County bidder whose bid is not low but falls within 2% of the lowest responsive bid is afforded the opportunity to become the successful bidder if it agrees to reduce its bid to match the lowest responsive bid. The City of Kalamazoo is the sole determiner whether a bidder is responsible, qualifies as a Kalamazoo County bidder, and if its bid is responsive to the City’s specifications, terms and conditions.

If the lowest Kalamazoo County bidder chooses not to match the lowest bid, the next lowest responsive Kalamazoo County bidder whose bid falls within 2% of the lowest bid, is given the opportunity to match the lowest responsive bid.

To qualify as a Kalamazoo County bidder, the bidder must meet both the following criteria:

1. Have a physical presence in Kalamazoo County by maintaining a permanent office, factory or other facility in Kalamazoo County with employees working in Kalamazoo County.
2. Have paid real or personal property taxes related to said business to the City of Kalamazoo, County of Kalamazoo or other municipal corporation within Kalamazoo County in the previous tax year, except that a non-profit entity need not meet this requirement.

This local preference policy applies only to purchases for materials, supplies, capital outlay, and services for maintenance, repair or operation of City facilities that are over \$25,000. If more than 50% of the contract is sub-contracted to firms located outside of Kalamazoo County that bid does not qualify for the local preference policy outlined above. The local preference policy will not apply if prohibited by law. The Purchasing Agent has the authority to finally determine if the bidder qualifies as a Kalamazoo County bidder as set forth herein. The Purchasing Agent may take into account the permanency of the business in Kalamazoo, and whether the business appears to be claiming to be a Kalamazoo County business solely or primarily to qualify as a Kalamazoo County business under this Resolution, and any other material factors.

CERTIFICATION

If you qualify as a Kalamazoo County bidder and wish to be considered for the local preference provisions as provided above please certify that fact by providing the information requested below and attesting to its accuracy.

Firm Name: _____

Street Address of Business: _____

City, State, and Zip Code: _____

Number of employees working in Kalamazoo County: _____

Name the city or township to which business real and/or personal property taxes are paid or provide non-profit status:

The above information is accurate:
Signature: _____ Date: _____

Title: _____

REFERENCE QUESTIONNAIRE

Please answer the following questions completely.

1. Firm name: _____
2. Established: Year _____ Number of Employees: _____
3. Type of organization:
 - a. Individual: _____
 - b. Partnership: _____
 - c. Corporation: _____
 - d. Other: _____
4. Former firm name(s) if any, and year(s) in business:

5. Include at least 3 references of contracts for similar work performed over the last five (5) years. Include: owner, contact person and phone number and description of work performed.
 - 5.1 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - 5.2 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - 5.3 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____

I hereby certify that all of the information provided is true and answered to the best of my ability.

Signed: _____ Name: _____
(type or print)

Title: _____ Date: _____



MANAGEMENT SERVICES DEPARTMENT
PURCHASING DIVISION
241 W. South Street
Kalamazoo, Michigan 49007-4796
Telephone (269) 337-8020
FAX (269) 337-8500
cokpurchasing@kalamazoo.org

COVID-19 ADDENDUM
March 16, 2020

TO: ALL Prospective Bidders
PROJECT: ALL Upcoming Projects

The purpose of this addendum is to clarify and/or modify the sealed bid delivery and bid opening process for all upcoming projects. All work affected is subject to all applicable terms and conditions of the Bidding and Contract Documents.

1. UPDATE TO SEALED BID DELIVERY AND BID OPENING POLICY

Effective immediately and continuing until further notice, due to the COVID-19 virus the City of Kalamazoo may no longer be accepting sealed bids in-person or conducting public bid openings.

Bidders can submit sealed bids in one of the following ways:

- Mail your bid, to be received before the bid due date and time indicated in the bid document, to the City of Kalamazoo at the following address:

City of Kalamazoo
Purchasing Division
241 West South Street
Kalamazoo, MI 49007

- Deliver your bid to the Treasurer's Office Payment Drop Box located in the northwest corner of City Hall before the bid due date and time indicated in the bid document. Pictures of the drop box location have been provided in **Photo Attachment**.

Bidders are strongly encouraged to deliver their sealed bid to the Treasurer's Office Payment Drop Box. However, if hand delivery of your bid to the drop box is not an option, please be sure to allow enough time for possible mail delays when mailing sealed bids to the City. Any bid received after the exact date and time specified for receipt will not be considered. (Note: The City reserves the right to consider bids that have been determined by the City to be received late due to mishandling by the City after receipt of the bid and no award has been made.)

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by fax machine or email will not be accepted.

The Purchasing Division will post bid tabulations to the City of Kalamazoo website within 24 hours after the bid opening date and time at: <https://www.kalamazoocity.org/bidopportunities>.

Questions regarding this sealed bid delivery and bid opening policy change related to the COVID-19 virus should be directed to the City of Kalamazoo at (269) 337-8020.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michelle Emig". The signature is fluid and cursive, with the first name "Michelle" written in a larger, more prominent script than the last name "Emig".

Michelle Emig
Purchasing Division Manager



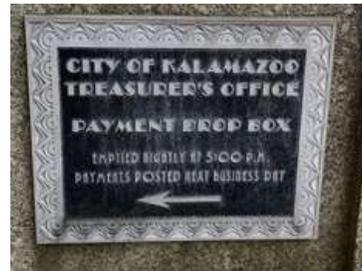
COVID-19 Addendum

PHOTO ATTACHMENT

***CITY OF KALAMAZOO
TREASURER'S OFFICE PAYMENT DROP
BOX PICTURES***

CITY OF KALAMAZOO TREASURER’S OFFICE PAYMENT DROP BOX

Deliver your bid to the Treasurer’s Office Payment Drop Box located in the northwest corner of City Hall before the bid due date and time indicated in the bid document.



1. Open drop box located at City Hall.



2. Insert SEALED BID here.



I hereby state that all of the information I have provided is true, accurate and complete. I hereby state that I have the authority to submit this bid which will become a binding contract if accepted by the City of Kalamazoo. I hereby state that I have not communicated with nor otherwise colluded with any other bidder, nor have I made any agreement with nor offered/accepted anything of value to/from an official or employee of the City of Kalamazoo that would tend to destroy or hinder free competition.

The firm's identification information provided will be used by the City for purchase orders, payment and other contractual purposes. If the contractual relationship is with, or the payment made to, another firm please provide a complete explanation on your letterhead and attach to your bid. Please provide for accounts payable purposes:

Tax Identification Number (Federal ID): _____

Remittance Address: _____

I hereby state that I have read, understand and agree to be bound by all terms and conditions of this bid document.

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL ADDRESS: _____

FOR CITY USE ONLY - DO NOT WRITE BELOW

SECTION III
CITY OF KALAMAZOO
INDEMNITY AND INSURANCE

Contractor, or any of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and acceptable to the City of Kalamazoo within ten (10) days of the Notice of Award. The requirements below should not be interpreted to limit the liability of the Contractor. All deductibles and SIR's are the responsibility of the Contractor.

The Contractor shall procure and maintain the following insurance coverage:

Workers' Compensation Insurance including Employers' Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and aggregate. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent, if not already included and (E) XCU coverage if the nature of the contract requires XC or U work.

Automobile Liability including Michigan No-Fault Coverages, with limits of liability not less than \$1,000,000 per occurrence, combined single limit for Bodily Injury, and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

Additional Insured: Commercial General Liability and Automobile Liability, as described above, shall include an endorsement stating that the following shall be *Additional Insureds*: The City of Kalamazoo, all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed that by naming the City of Kalamazoo as additional insured, coverage afforded is considered to be primary and any other insurance the City of Kalamazoo may have in effect shall be considered secondary and/or excess.

To the fullest extent permitted by law the Contractor agrees to defend, pay on behalf of, indemnify, and hold harmless the City of Kalamazoo, its elected and appointed officials, employees, agents and volunteers, and others working on behalf of the City of Kalamazoo against any and all claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City of Kalamazoo, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, which arises out of, or is in any way connected or associated with this contract.

Cancellation Notice: All policies, as described above, shall include an endorsement stating that it is understood and agreed that thirty (30) days, or ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: City of Kalamazoo, Purchasing Division, 241 W. South Street, Kalamazoo, MI 49007.

Proof of Insurance Coverage: The Contractor shall provide the City of Kalamazoo at the time that the contracts are returned by him/her for execution, or within 10 days of Notice of Award, whichever is earlier, a Certificate of Insurance as well as the required endorsements. In lieu of required endorsements, if applicable, a copy of the policy sections where coverage is provided for additional insured and cancellation notice would be acceptable. Copies or certified copies of all policies mentioned above shall be furnished, if so requested.

INDEMNITY AND INSURANCE
Continued

If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to City of Kalamazoo at least ten (10) days prior to the expiration date.

Scope of Coverage: The above requirements and conditions shall not be interpreted to limit the liability of the Contractor under this Contract, but shall be interpreted to provide the greatest benefit to the City and its officers and employees. The above listed coverages shall protect the Contractor, its employees, agents, representatives and subcontractors against claims arising out of the work performed. It shall be the Contractor's responsibility to provide similar insurance for each subcontractor or to provide evidence that each subcontractor carries such insurance in like amount prior to the time such subcontractor proceeds to perform under the contract.

**SECTION IV
SPECIAL REQUIREMENTS**

1. BID BOND/GUARANTEE

The bid must be accompanied by a bid bond which shall not be less than five (5%) percent of the total amount of the bid. No bid will be considered unless it is accompanied by the required guarantee. The bid guarantee shall ensure the execution of the bid and award, and the furnishing of a performance bond and a labor and material bond (A and B below) by the successful bidder. (Contractors Note: A cashier's or certified check in lieu of a bid bond is **NOT** acceptable.)

A. PERFORMANCE BOND

A performance bond shall be furnished in the full amount of the contract ensuring the City of faithful performance of all the provisions of the contract, and the satisfactory performance of any equipment required hereunder. The bond shall also ensure the City against defective workmanship and/or materials.

B. LABOR AND MATERIAL (PAYMENT) BOND

A labor and material (payment) bond shall be furnished for the period covered by the contract, in the full amount of the contract for the protection of labor and material suppliers and sub-contractors.

Bonds shall be secured by a guaranty or a surety company listed in the latest issue of the U.S. Treasury, circular 570, and licensed to do business in the State of Michigan, and written in favor of the City of Kalamazoo. The amount of such bonds shall be within the maximum amount specified for such company in said circular 570. The bonds shall be accompanied by a power of attorney showing authority of the bonding agent to sign such bonds on behalf of the guaranty or surety company. The cost of the bonds shall be borne by the Contractor.

Failure of the Contractor to supply the required bonds within ten (10) days after Notice of Award, or within such extended period as the Purchasing Agent may agree to, shall constitute a default and the City of Kalamazoo may either award this contract to the next lowest bidder or re-advertise for bids and may charge against the Contractor for the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the City of Kalamazoo for a refund.

2. WAIVERS OF LIEN

Upon completion of all work and request for final payment, the Contractor shall furnish a 100% waiver of lien from each supplier and sub-contractor covering all items of the work. Failure to supply waivers of lien for the entire job upon completion and final payment request will be considered grounds for withholding final payment.

3. SUBCONTRACTORS

- A. Contractors shall state on the Bid and Award page any and all subcontractors to be associated with their bid, including the type work to be performed. Any and all subcontractors shall be bound by all of the terms, conditions and requirements of the contract; however, the prime contractor shall be responsible for the performance of the total work requirements.
- B. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women business enterprise, and shall use its best efforts to ensure that minority and women business enterprises have maximum practicable opportunity to compete for subcontract work under this agreement.

4. PREVAILING WAGES

The successful bidder will be required to comply with Section 2-125 of the Code of Ordinances of the City of Kalamazoo regarding prevailing wages and Appendix B attached, incorporated herein by reference. Special note: This provision applies only to projects in excess of \$100,000 for City (\$2,000 federal) funded projects.

The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Division **prior** to work and payroll and work monitoring during the duration of the contract. Please contact Purchasing at (269) 337-8020 if you have any questions regarding Davis-Bacon provisions.

**SECTION V
GENERAL PROVISIONS**

1. INTENT

It is the intent of these plans and specifications to provide for a contractor who shall provide all labor, materials, tools and equipment necessary to perform in a professional manner for the **Milham Park Dam Removal** project as described in the specifications and bid document.

2. SCOPE OF WORK

This contract includes but is not limited to: All work as described in the specifications and shown on the drawings for the removal of the dam located at Milham Park in Kalamazoo, Michigan.

3. VIRTUAL PRE-BID MEETING AND INSPECTION OF SITE

3.1 **A virtual pre-bid meeting is scheduled for September 22, 2020 @ 10:00 a.m. Click [here](#) to register in advance for this Zoom meeting.** Each bidder shall also visit the site of the proposed work and fully acquaint himself/herself with the existing conditions relating to construction and labor and shall fully inform himself/herself as to the facilities involved and the difficulties and restrictions attending the performance of this contract. Questions may be emailed to Patrick McVerry, mcverryp@kalamazoocity.org, Rob Myllyoja, Rob.Myllyoja@stantec.com, Jim Moyer, Jim.Moyer@stantec.com and Jonathan Scheibly, Jonathan.Scheibly@stantec.com by **5:00 p.m. on September 28, 2020.**

3.2 The bidder shall thoroughly examine and become familiar with the drawings, specifications and all other bid/contract documents. The Contractor, by the execution of this contract, shall in no way be relieved of any obligation under it due to his/her failure to receive or examine any form of legal instrument, or to visit the site and acquaint himself/herself with the conditions there existing. No allowance shall be made subsequently in this connection in behalf of the Contract for any negligence of his/her part.

4. QUANTITIES

The quantities shown or indicated on the plans are only estimated. Payment will be made based upon unit pricing of quantities installed.

5. UNIT PRICING

The unit price, including its pro-rata share of overhead, multiplied by the quantity shown shall represent the total bid and shall be held firm for the life of this contract. Any bid not conforming to this requirement may be rejected as non-responsive.

6. INSPECTION OF WORK

The City may maintain inspectors on the job who shall at all times have access to work.

7. INSPECTION OF SITE

Each bidder shall visit the site of the proposed work and fully acquaint himself/herself with the existing conditions relating to construction and labor and shall fully inform himself/herself as to the facilities involved and the difficulties and restrictions attending the performance of this contract. The bidder shall thoroughly examine and become familiar with the drawings, specifications and all other bid/contract documents. The Contractor, by the execution of this contract, shall in no way be relieved of any obligation under it due to his/her failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself/herself with the conditions there existing. No allowance shall be made subsequently in this connection in behalf of the Contractor for any negligence of his/her part. For inspection call the Public Services Department, Water Resources Division.

8. INSPECTION AND TESTING

The Contractor shall give the City's Project Manager (Project Manager) timely notice of readiness of the work for all required inspections, tests or approvals, and shall cooperate with inspections and testing personnel to facilitate required inspections or tests. Verification that testing required by the contract has been completed on one phase of the project prior to proceeding to the next phase is the responsibility of the Contractor. In the event that the project has proceeded without required testing, the Contractor shall insure that the required testing is obtained retroactively and shall provide access for testing as necessary at his/her sole expense.

9. MATERIALS INSPECTION AND RESPONSIBILITY

9.1 The Project Manager shall have the right to inspect any materials to be used in carrying out the terms of the contract.

9.2 The City does not assume any responsibility for the contracted quality and standard of all materials, equipment, components or completed work furnished under this contract.

9.3 Any materials, equipment, components or completed work which does not comply with contract specifications, MDOT, or State codes may be rejected by the City, and shall be replaced by the Contractor at no cost to the City.

9.4 Any materials, equipment or components rejected shall be removed within a reasonable period of time from the premises of the City at the entire expense of the Contractor after notice has been given by the City to the Contractor that such materials, equipment or components have been rejected.

10. LAYING OUT WORK

Before submitting a bid the Contractor shall verify all measurements and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings. Any difference that may be found shall be submitted to the City Engineer for consideration before proceeding. The City Engineer will provide staking for the project.

11. SUPERVISION

The Contractor shall employ an experienced superintendent or foreperson on the job at all times.

12. TEMPORARY UTILITIES

12.1 Temporary or construction water will NOT be available on the sites. The Contractor must provide for drinking water.

12.2 Temporary toilets: To be supplied by the Contractor as may be necessary.

13. SITE SECURITY

The Contractor shall be responsible for job site security of all materials and tools provided by him/her and no claim for loss or damage will be considered by the City.

14. TARDINESS

Construction delays resulting from tardiness on the part of the Contractor will be reviewed by the City in the event of any request for contract extension by the Contractor.

15. PROGRESS SCHEDULE

- 15.1 After receipt of Notice to Proceed, work shall start within 10 days unless otherwise agreed to by the Project Manager.
- 15.2 **Project shall have a final completion date of May 1, 2021.**
- 15.3 Work of a similar nature may be added to this contract if agreed to by the City and the Contractor. In the event that work is added, the progress schedule for the work will remain unchanged. Any contract time added for additional work will be applied to that additional work only, and cannot be added to items in the original contract. Any work done on the items in the original contract past the number of working days stated herein will be subject to liquidated damages regardless of any work that may be added at a later date.
- 15.4 The Contractor will be required to meet with the Public Services representatives to work out detailed progress schedule. The schedule for this meeting will be within two weeks after contract award has been made.
- 15.5 The named sub-contractor(s) for all items shall also be present at the scheduled meeting and they will be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule.
- 15.6 The Progress Schedule shall include, as a minimum, the starting and completion dates for major items, and where specified in the bid document the date the project is to be opened to traffic as well as the final project completion date specified in the bid documents. The Progress Schedule shall be coordinated with all aspects of the work occurring at the site.
- 15.7 Failure on the part of the Contractor to carry out the provisions of the Progress Schedule as established may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.
- 15.8 The starting date and the contract time to the completion date for this project may be adjusted by Public Services without imposing liquidated damages upon the receipt of satisfactory documented evidence that unforeseen delayed delivery of critical materials will prevent the orderly prosecution of the work.

16. CONSTRUCTION SCHEDULE AND COORDINATION

- 16.1 The Contractor shall supply the City with an agreeable construction schedule before commencing work on this contract. This schedule shall detail beginning and completion dates for each major component of the project.
- 16.2 The Contractor shall coordinate and cooperate with all other contractors who may be working on the site in order to allow for the orderly progress of work being done.
- 16.3 The Contractor is required to keep the Project Manager fully informed of any proposed work which will tend to interfere with the existing operations at the site.
- 16.4 The Contractor shall schedule all work to accommodate the City's schedule. In the event Contractor's schedule falls on weekends, nights or overtime work is required, no additional compensation will be allowed. All work shall be part of this contract without regard to when it is done.

17. CONTRACTOR COORDINATION

- 17.1 The Contractor shall make every effort to coordinate every aspect of his work with that of other contractors on the site to assure an efficiently managed and proper installation.
- 17.2 Consideration shall be given to timing of construction, maintaining adequate construction access, and construction staging. Any costs associated with this coordination shall be included in the contract.

18. COORDINATING CLAUSE

The Contractor's attention is called to Article 104.07 of the MDOT 2003 Standard Specifications for Construction entitled "Cooperation by Contractor."

19. ADDITIONS

- 19.1 Any modification to the contract shall be subject to prior approval by the Purchasing Agent. City Commission approval may also be required.
- 19.2 Prices for additional work required are not requested in the itemized listing contained herein for the base project. Should additional work be authorized, compensation shall be made on the basis of price or prices to be mutually agreed upon. Such additional work shall not begin until approved.

20. MAINTAINING TRAFFIC

- 20.1 This work shall be in accordance with the requirements of Section 812 of the MDOT Standard Specifications for Construction and as specified herein. The Contractor is advised that the current Michigan Manual of Uniform Traffic Control Devices is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc. required on this project.
- 20.2 The Contractor shall furnish, erect, maintain and, upon completion of the work, remove all traffic control devices and barricade lights within the project and around the perimeter of the project for the safety and protection of through and local traffic. This includes, but is not limited to: Advance, regulatory and warning signs; barricades and channeling devices at intersecting streets on which traffic is to be maintained; barricades at the ends of the project and at right-of-way lines for intersecting streets which are to be closed with the first usable street on each side of the project. Traffic regulators, where required by the Engineer, are included.
- 20.3 Where the existing pavement or partial widths of new pavement are to be utilized for the maintenance of through and local traffic, drum type barricades will be required at 50' intervals or as directed by the Engineer for channeling and directing traffic through the construction area.
- 20.4 Through traffic shall be maintained utilizing sidewalk closures with detours and traffic shifts per MDOT traffic and safety details.
- 20.5 Protection of all pedestrian traffic shall be maintained at all times.

MAINTAINING TRAFFIC (*cont.*)

20.6 Payment for the traffic control devices shall be based on the contract lump sum price.

20.7 Under Article 812.04.D "Operated Pay Items" the term 'Relocating' shall include the relocating of the item from any street covered by the contract to any other street covered by the contract.

Special Restrictions: Access to frontage properties shall be maintained as much as practical. Emergency access shall be maintained at all times. The Contractor shall maintain two-way traffic with flag control as needed when the road is restricted to only one traffic lane.

21. LIQUIDATED DAMAGES

21.1 Liquidated damages, if applicable, shall be \$500.00 a day regardless of contract size.

21.2 The provisions of Article 108.11B of the MDOT 2003 Standard Specifications for Construction for reducing liquidated damages of 50 percent of the amount indicated in Table 108-1 of article 108.11C for projects where traffic is maintained during construction will not apply.

22. REMOVAL OF RUBBISH

The Contractor shall daily remove all rubbish and accumulated materials due to his/her construction.

23. SITE ACCESS

The City will provide fair and reasonable access to the job site within the working schedules of both parties.

24. GUARANTEE

The Contractor shall guarantee all of his/her work for a period of two (2) years following the date of final acceptance of the completed work and shall repair, replace or make good any materials or work which fail to function or perform or be found defective, without cost to the City.

25. SAFETY

The Contractor shall comply with all applicable OSHA and MIOSHA regulations.

26. PAY ESTIMATES

The Contractor shall be responsible for the generation of invoices for payment. Payment will be generated by the City based upon an approved invoice. Recommended frequency of payment is monthly, however, frequency of payment will not exceed bi-weekly.

27. PRODUCT/SYSTEM SUBSTITUTIONS

Submit a written request, to be received not later than 10 days prior to scheduled bid opening, for Substitution of any Product not named. If no substitutions are submitted, it will be reasonably concluded by the Owner and Landscape Architect that the specified product will be incorporated into the Work and the Bidder will be committed to supplying the specified product.

- 27.1 Describe in detail any variance to the Product specified. All proposed substitution for specified items shall be substantially the same size (height, length, width, diameter, etc.), type, color, construction quality and shall meet the design intent to be considered for substitution for the Product specified.
- 27.2 Document each request with complete data substantiating compliance of proposed Substitution with Product specified including written certification that Product conforms to or exceeds all requirements of the Product specified.
- 27.3 Document all coordination information, including a list of changes or modifications needed to the Contract Documents or other parts of the Work and to construction performed by the Owner and Separate Contractors that will become necessary to accommodate the proposed substitution.
- 27.4 Provide name, address and telephone number of manufacturer's authorized representative.
- 27.5 Submit three copies of all documents for each request for Substitution for consideration.
- 27.6 Approval of the Substitution request, if given, will be in the form of an addendum issued prior to scheduled opening date and hour at local time.

28. SAMPLES AND DEMONSTRATIONS

Evidence in the form of samples may be requested. Such samples are to be furnished after the date of bid opening only upon request of The City unless otherwise stated in the bid proposal. If samples should be requested, such samples must be received by The City no later than seven (7) days after formal request is made. When required, The City may request full demonstrations of any unit(s) bid prior to the award of any contract. Samples, when requested, must be furnished free of expense to The City and if not used in testing or destroyed, will upon request within thirty (30) days of bid award be returned at the bidder's request.

29. ACCEPTANCE OF MATERIAL

The material delivered under this proposal shall remain the property of the seller until a physical inspection and actual usage of the material and/or services is made and thereafter accepted to the satisfaction of The City and must comply with the terms herein, and be full in accord with specifications and of the highest quality. In the event the material and/or service supplied to The City is found to be defective or does not conform to specifications, The City reserves the right to cancel the order upon written notice to the seller and return the product to seller at the seller's expense.

30. VARIATIONS TO SPECIFICATIONS

For purposes of evaluation, the bidder **MUST** indicate any variances from our specifications, terms and/or conditions, no matter how slight. If variations are not stated in the proposal, it will be assumed that the product or service fully complies with our specifications, terms and conditions.

31. SAFETY STANDARDS

The bidder warrants that the products supplied to The City conform in all respects to the standards set forth in the Occupational Safety and Health Act of 1970 and its amendments and the failure to comply with this condition will be considered a breach of contract.

32. MANUFACTURER'S CERTIFICATION

The City reserves the right to request from bidders separate manufacturer certification of all statements made in the bid.

33. PROTECTION OF WORK

The Contractor shall maintain adequate protection of all his/her work from damage and shall protect all public and private abutting property from injury or loss arising in connection with this contract.

34. PROTECTION OF PROPERTY

34.1 The Contractor shall confine his/her equipment and operations to those areas of the work site necessary for the completion of the work, or as authorized by the Project Manager. The Contractor shall protect and preserve from damage any facilities, utilities or features including trees, shrubs and turf which are not required to be disturbed by the requirements of the work.

34.2 The Contractor shall be responsible to determine the location of and to protect from damage any utilities or other improvements.

35. QUESTIONS

Bidders shall address questions regarding the specifications and drawings to Patrick McVerry, mcverryp@kalamazoocity.org, Rob Myllyoja, Rob.Myllyoja@stantec.com, Jim Moyer, Jim.Moyer@stantec.com and Jonathan Scheibly, Jonathan.Scheibly@stantec.com (This does not relieve the requirements of Page 1, Item 3.) Questions regarding terms, conditions and other related bid requirements may be addressed to Monica Johnson, Buyer at (269) 337-8603 or johnsonm2@kalamazoocity.org.

**SECTION VI
TERMS AND CONDITIONS**

1. AWARD OF CONTRACT

- A. This contract will be awarded to that responsible bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all bids and waive informalities and minor irregularities in bids received. Other factors include, as an example but not limited to, delivery time, conformance to specifications, incidental costs such as demurrage and deposits, etc.

Notification of award will be in writing by the Purchasing Agent. Upon notification, the Contractor shall submit to the Purchasing Division all required insurance certificates (if required) and such other documentation as may be requested or required hereunder. Upon their receipt and subsequent approval by the City, the Purchasing Agent will forward to the Contractor a written **NOTICE TO PROCEED**. Work shall **NOT** be started until such **NOTICE TO PROCEED** is received by the Contractor.

- B. Unilateral changes in bid prices by the bidder shall not be allowed. However, the City, at its sole option, reserves the right to negotiate with bidders in the event of, but not limited to:
- 1) No bids received;
 - 2) A single bid being received; or
 - 3) Prices quoted are over budget and/or unreasonable.

2. COMPLETE CONTRACT

This bid document together with its addenda, amendments, attachments and modifications, when executed, becomes the complete contract between the parties hereto, and no verbal or oral promises or representations made in conjunction with the negotiation of this contract shall be binding on either party.

3. SUBCONTRACTORS - NON ASSIGNMENT

Bidders shall state in writing any and all sub-contractors to be associated with this bid, including the type of work to be performed. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women-owned business enterprises.

The Contractor hereby agrees and understands that the contract resulting from this solicitation shall not be transferred, assigned or sublet without prior written consent of the City of Kalamazoo.

4. TAXES

The City of Kalamazoo is exempt from all federal excise tax and state sales and use taxes. However, depending upon the situation, the vendor or contractor may not be exempt from said taxes and the City of Kalamazoo is making no representation as to any such exemption.

5. INVOICING

All original invoice(s) will be sent to the Finance Division, 241 W. South Street, Kalamazoo, MI 49007 or via email at apinvoice@kalamazoocity.org . Faxed copy of invoice(s) will not be accepted, unless it is to replace an original invoice that was lost in the mail. The Finance Division processes payments after receipt of an original invoice from the Contractor and approval by the department.

The City of Kalamazoo policy is to pay invoice(s) within 30 days from the receipt of the original invoice, if the services or supplies are satisfactory and the proper paper work and procedures have been followed. In order to guarantee payment to the vendor on a timely basis, the vendor needs to receive a purchase order number before supplying the City of Kalamazoo with goods or services. All original, and copies of original invoice(s), will clearly state which purchase order they are being billed against.

The City of Kalamazoo is a government municipality and therefore is tax exempt from all sales tax. Our tax exempt number is 38-6004627.

The vendor is responsible for supplying the Finance Division with a copy of their W-9 if they are providing a service to the City of Kalamazoo.

6. PAYMENTS

Upon issuance of certificates of Payment by the Architect/Engineer for labor and material incorporated in the work and the materials suitably stored at the site payment shall be made up to ninety (90%) percent of the value thereof.

When the cumulative total of payment is equal to fifty (50%) percent of the contract sum, subsequent payments will be made in the full amount for labor and material certified by the Architect/Engineer.

The amount retained shall be held until final acceptance of the work, receipt of all payrolls, releases, and waiver of liens.

7. CHANGES AND/OR CONTRACT MODIFICATIONS

The City reserves the right to increase or decrease quantities, service or requirements, or make any changes necessary at any time during the term of this contract, or any negotiated extension thereof. Price adjustments due to any of the foregoing changes shall be negotiated and mutually agreed upon by the Contractor and the City.

Changes of any nature after contract award which reflect an increase or decrease in requirements or costs shall not be permitted without prior approval by the Purchasing Agent. City Commission approval may also be required. **SUCH CHANGES, IF PERFORMED IN ADVANCE OF PURCHASING AGENT APPROVAL, MAY BE SUBJECT TO DENIAL AND NON-PAYMENT.**

8. LAWS, ORDINANCES AND REGULATIONS

The Contractor shall keep himself/herself fully informed of all local, state and federal laws, ordinances and regulations in any manner affecting those engaged or employed in the work and the equipment used. Contractor and/or employees shall, at all times, serve and comply with such laws, ordinances and regulations.

Any permits, licenses, certificates or fees required for the performance of the work shall be obtained and paid for by the Contractor.

This contract shall be governed by the laws of the State of Michigan.

9. RIGHT TO AUDIT

The City or its designee shall be entitled to audit all of the Contractor's records, and shall be allowed to interview any of the Contractor's employees, throughout the term of this contract and for a period of three years after final payment or longer if required by law to the extent necessary to adequately permit evaluation and verification of:

- A. Contractor compliance with contract requirements,
- B. Compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of his payees.

10. HOLD HARMLESS

If the acts or omissions of the Contractor/Vendor or its employees, agents or officers, cause injury to person or property, the Contractor/Vendor shall defend, indemnify and save harmless the City of Kalamazoo, their agents, officials, and employees against all claims, judgments, losses, damages, demands, and payments of any kind to persons or property to the extent occasioned from any claim or demand arising therefrom.

11. DEFAULT

The City may at any time, by written notice to the Contractor, terminate this contract and the Contractor's right to proceed with the work, for just cause, which shall include, but is not limited to the following:

- A. Failure to provide insurance and bonds (when called for), in the exact amounts and within the time specified or any extension thereof.
- B. Failure to make delivery of the supplies, or to perform the services within the time specified herein, or any extension thereof.
- C. The unauthorized substitution of articles for those bid and specified.
- D. Failure to make progress if such failure endangers performance of the contract in accordance with its terms.
- E. Failure to perform in compliance with any provision of the contract.

DEFAULT (cont.)

- F. **Standard of Performance** - Contractor guarantees the performance of the commodities, goods or services rendered herein in accordance with the accepted standards of the industry or industries concerned herein, except that if this specification calls for higher standards, then such higher standards shall be provided.

Upon notice by the City of Contractor's failure to comply with such standards or to otherwise be in default of this contract in any manner following the Notice to Proceed, Contractor shall immediately remedy said defective performance in a manner acceptable to the City. Should Contractor fail to immediately correct said defective performance, said failure shall be considered a breach of this contract and grounds for termination of the same by the City.

In the event of any breach of this contract by Contractor, Contractor shall pay any cost to the City caused by said breach including but not limited to the replacement cost of such goods or services with another Contractor.

The City reserves the right to withhold any or all payments until any defects in performance have been satisfactorily corrected.

In the event the Contractor is in breach of this contract in any manner, and such breach has not been satisfactorily corrected, the City may bar the Contractor from being awarded any future City contracts.

- G. All remedies available to the City herein are cumulative and the election of one remedy by the City shall not be a waiver of any other remedy available to the City.

12. TERMINATION OF CONTRACT

The City may, at any time and without cause, suspend the work of this contract for a period of not more than ninety days after providing notice in writing to the Contractor. The Contractor shall be allowed an adjustment in the contract price or an extension of the contract times, or both, directly attributable to the suspension if Contractor makes an approved claim.

The City may, without prejudice to any other right or remedy of the City, and with or without cause, terminate the contract by giving seven days written notice to the Contractor. In such case the Contractor shall be paid, without duplication, for the following items:

- A. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such work;
- B. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the contract documents in connection with uncompleted work, plus fair and reasonable sums for overhead and profit on such expenses;
- C. All documented claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and
- D. Reasonable expenses directly attributable to termination.

The Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

13. INDEPENDENT CONTRACTOR

At all times, the Contractor, any of his/her employees, or his/her sub-contractors and their subsequent employees shall be considered independent contractors and not as City employees. The Contractor shall exercise all supervisory control and general control over all workers' duties, payment of wages to Contractor's employees and the right to hire, fire and discipline their employees and workers. As an independent contractor, payment under this contract shall not be subject to any withholding for tax, social security or other purposes, nor shall the Contractor or his/her employees be entitled to sick leave, pension benefit, vacation, medical benefits, life insurance or workers' unemployment compensation or the like.

14. PROJECT SUPERVISOR

The Contractor shall employ an individual to act as Project Supervisor. The Project Supervisor shall be available to the Contractor's workers and the Project Manager at all times by use of a beeper or other reliable means. The Project Supervisor shall prepare daily work plans for the employees, monitor employee performance, attendance and punctuality; and work closely with the City's Project Manager in assuring contract compliance.

15. MEETINGS

The Contractor and/or Project Supervisor shall be available to meet with the Department Head or Project Manager at a mutually agreeable time to discuss problems, issues or concerns relative to the contract. Either party may call a meeting at any time. When such a request for a meeting is made, the meeting date shall, in no case exceed five (5) working days after the request; and, if in the sole opinion of the Department Head, the severity of the circumstance warrants, no more than one (1) working day.

APPENDIX A
NON-DISCRIMINATION CLAUSE FOR ALL CITY OF KALAMAZOO CONTRACTS

The Contractor agrees to comply with the Federal Civil Rights Act of 1964 as amended; the Federal Civil Rights Act of 1991 as amended; the Americans With Disabilities Act of 1990 as amended; the Elliott-Larson Civil Rights Act, Act. No. 453, Public Act of 1976 as amended; the Michigan Handicappers Civil Rights Act, Act No. 220, Public Act of 1976 as amended, City Ordinance 1856 and all other applicable Federal and State laws. The Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability, family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position.
3. If requested by the City, the Contractor shall furnish information regarding practices, policies and programs and employment statistics for the Contractor and subcontractors. The Contractor and subcontractors shall permit access to all books, records and accounts regarding employment practices by agents and representatives of the City duly charged with investigative duties to assure compliance with this clause.
4. Breach of the covenants herein may be regarded as a material breach of the contract or purchasing agreement as provided in the Elliott-Larsen Civil Rights Act and City Ordinance 1856.
5. The Contractor will include or incorporate by reference the provisions of the foregoing paragraphs 1 through 4 in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission* and will provide in every subcontract or purchase order that said provision will be binding upon each subcontractor or seller.
6. The Contractor will not preclude a person with a criminal conviction from being considered for employment unless otherwise precluded by federal or state law. (for contracts over \$25,000)

The Elliott-Larson Civil Rights Act, Sec. 202 of Act. No. 453 of 1976 reads in part as follows:

Sec. 202. (1) An employer shall not:

- (a) Fail or refuse to hire, or recruit, or discharge or otherwise discriminate against an individual with respect to employment, compensation, or a term condition or privilege of employment because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (b) Limit, segregate or classify an employee or applicant for employment in a way which deprives or tends to deprive the employee or applicant of an employment opportunity or otherwise adversely affects the status of an employee or applicant because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (c) Segregate, classify or otherwise discriminate against a person on the basis of sex with respect to a term, condition or privilege of employment, including a benefit plan or system.

* Except for contracts entered into with parties employing less than three employees.

APPENDIX B - PREVAILING WAGES

Prevailing wages are applicable to this contract, therefore, rates will apply as follows:

- (XX) Project is funded by City of Kalamazoo monies and is estimated to be in excess of \$100,000.00. The applicable prevailing wage rates are attached.

Specifications for projects in which the City of Kalamazoo is party for construction, alterations and/or repair including painting and decorating of public buildings or public works in or for the City of Kalamazoo and which requires or involves the employment of mechanics and/or laborers shall contain the following provisions stating the minimum wages to be paid the various classes of laborers and mechanics for the project. Prevailing wage rates determined by the U.S. Department of Labor under Davis Bacon and related acts will be used for City of Kalamazoo construction projects.

By the incorporation of prevailing wage rates within this specification, the City of Kalamazoo stipulates that:

- ✓ Contractor or his/her subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less than once a week and without subsequent deduction or rebate on any account the full amount, accrued at the time of payment, computed at wage rates as incorporated herein regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and such laborers and mechanics;
- ✓ The scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
- ✓ The Prime Contractor and all subcontractors shall submit weekly certified payrolls documenting the hours worked and wages paid by work classification. **NOTE: Contactor shall not include Social Security numbers of employees on certified payrolls.**
- ✓ There may be withheld from the contractor's accrued payments the amount considered necessary by the City's Contracting Official to pay to laborers and mechanics employed by the contractor or any subcontractor on the work for the difference between the rates of wages required by the contract and the rates of wages received by such laborers and mechanics except those amounts properly deducted or refunded pursuant to the terms of the Davis-Bacon Act (USC, Title 40, Sec. 276a) and interpretations thereof.

Special Note: The City's requirements as it relates to prevailing wages **includes a meeting with the City's Purchasing Agent prior to starting work and the submission of weekly certified payrolls by prime contractors and all subcontractors.** The City will monitor certified payrolls, work progress, and conduct interviews with the mechanics and labors employed directly upon the site during the duration of the contract Please contact the Purchasing Department at (269) 337-8020 if you have any questions regarding prevailing wage provision.

The overtime pay to which a laborer or mechanic is entitled under this contract shall be that overtime pay to which he/she is entitled by any agreement made with the contractor or subcontractor or by any applicable provision of law; but in no event shall such amount be less than the prevailing wage in the Kalamazoo community for such overtime.

Revised 4-08



PREVAILING WAGES

Milham Park Dam Removal

Bid Reference #: 95939-001.0

September 2020

"General Decision Number: MI20200061 09/04/2020

Superseded General Decision Number: MI20190061

State: Michigan

Construction Type: Heavy

County: Kalamazoo County in Michigan.

Heavy, Includes Water, Sewer Lines and Excavation (Excludes Hazardous Waste Removal; Coal, Oil, Gas, Duct and other similar Pipeline Construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	02/21/2020
2	08/07/2020
3	09/04/2020

* CARP0525-006 06/01/2020

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 24.46	20.59

 ELEC0131-006 05/27/2019

	Rates	Fringes
ELECTRICIAN.....	\$ 34.36	16.48

 ENGI0325-009 09/01/2019

POWER EQUIPMENT OPERATORS: Underground Construction (Including Sewer)

	Rates	Fringes
POWER EQUIPMENT OPERATOR GROUP 1.....	\$ 32.92	24.35

GROUP 2.....	\$ 28.03	24.35
GROUP 3.....	\$ 27.53	24.35
GROUP 4.....	\$ 27.25	24.35

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backhoe/ Excavator, Boring Machine, Bulldozer, Crane, Grader/ Blade, Loader, Roller, Scraper, Trencher (over 8 ft. digging capacity)

GROUP 2: Trencher (8-ft digging capacity and smaller)

GROUP 3: Boom Truck (non-swinging, non- powered type boom)

GROUP 4: Broom/ Sweeper, Fork Truck, Tractor, Bobcat/ Skid Steer /Skid Loader

 ENGI0326-025 06/01/2020

EXCLUDES UNDERGROUND CONSTRUCTION

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 40.38	24.85
GROUP 2.....	\$ 37.08	24.85
GROUP 3.....	\$ 34.43	24.85
GROUP 4.....	\$ 32.72	24.85
GROUP 5.....	\$ 32.72	24.85
GROUP 6.....	\$ 26.86	24.85
GROUP 7.....	\$ 24.38	24.85

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane operator with main boom and jib 400', 300', or 220' or longer.

GROUP 2: Crane operator with main boom and jib 140' or longer, tower crane, gantry crane, whirley derrick

GROUP 3: Backhoe/Excavator; Boring Machine; Bulldozer; Crane; Grader/Blade; Loader; Roller; Scraper; Tractor; Trencher

GROUP 4: Bobcat/Skid Loader; Broom/Sweeper; Fork Truck (over 20' lift)

GROUP 5: Boom truck (non-swinging)

GROUP 6: Fork Truck (20' lift and under for masonry work)

GROUP 7: Oiler

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: \$1.50 per hour above the group 1 rate.

Crane operator with main boom and jib 400' or longer: \$3.00 per hour above the group 1 rate.

 IRON0340-004 06/19/2017

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING.....	\$ 24.43	24.67

LABO0334-011 09/01/2018

SCOPE OF WORK:
 OPEN CUT CONSTRUCTION: Excavation of earth and sewer, utilities, and improvements, including underground piping/conduit (including inspection, cleaning, restoration, and relining)

	Rates	Fringes
LABORER		
(1) Common or General.....	\$ 20.97	12.85
(2) Mason Tender-Cement/Concrete.....	\$ 21.10	12.85
(4) Grade Checker.....	\$ 21.28	12.85
(5) Pipelayer.....	\$ 21.40	12.85

LABO0355-010 06/01/2018

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
LABORER		
Common or General; Grade Checker; Mason Tender - Cement/Concrete.....	\$ 23.02	12.85
Pipelayer.....	\$ 20.34	12.85

PAIN0312-014 06/12/2014

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 21.75	11.94
Spray.....	\$ 22.75	11.94

PLAS0016-020 04/01/2014

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 22.31	12.83

PLUM0333-026 06/01/2019

Fort Custer

	Rates	Fringes
PLUMBER.....	\$ 38.19	22.33

PLUM0357-012 07/01/2019

Excluding Fort Custer

	Rates	Fringes
PLUMBER.....	\$ 34.20	21.35

* TEAM0007-011 06/01/2020

	Rates	Fringes
--	-------	---------

TRUCK DRIVER		
Lowboy/Semi-Trailer Truck...	\$ 28.05	.50 + a+b
Tractor Haul Truck.....	\$ 27.80	.50 + a+b

FOOTNOTE:
a. \$470.70 per week.
b. \$68.70 daily.

SUMI2010-059 11/09/2010

	Rates	Fringes
LABORER: Landscape.....	\$ 12.25	0.00
TRUCK DRIVER: Dump Truck.....	\$ 18.00	6.43
TRUCK DRIVER: Off the Road Truck.....	\$ 20.82	3.69

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====
Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example:

PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour

Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====
END OF GENERAL DECISION"



SPECIFICATIONS

Milham Park Dam Removal

Bid Reference #: 95939-001.0

September 2020

SECTION 02-00-01
MOBILIZATION AND SITE PREPARATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This item includes activities and materials required for the contractor to mobilize to the site and prepare the site to perform the work described in the Construction Documents, and to demobilize upon completion of the work. Work shall include tree and miscellaneous structure removal, stockpile/storage area establishment, ongoing maintenance of traffic control signage, and installation and maintenance of safety construction fence as indicated in the Construction Drawings, and site cleanup.

1.2 RELATED DOCUMENTS

- B. All portions of the following MDOT Standard Specifications for Construction apply to this section, with the following provisions.
- C. Mobilization, Section 150.
- D. Clearing, Section 120.
- E. Removing Miscellaneous Structures and Materials, Section 120.
- F. Project Cleanup, Section 209.
- G. Fencing, Section 808.
- H. Temporary Traffic Control for Construction Zone Operations, Section 812.
- I. Michigan Manual on Uniform Traffic Control Devices

PART 2 – PRODUCTS

- 1.1. Fencing shall be in accordance with the drawings and MDOT Standard Specification Section 907 – Fencing Materials.
- 1.2. Traffic control devices shall meet the requirements of MDOT Standard Specification Section 922 – Temporary Traffic Control Materials and the design requirements of the Michigan Manual on Uniform Traffic Control Devices.

PART 3 – EXECUTION

- 3.1 The Contractor shall adhere to the safety procedures as outlined and administrated by current Occupational and Health Safety Administration (OSHA) regulations.
- 3.2 Access road locations are as shown on the Construction Drawings. Access road

locations shall be staked, prior to any clearing, and approved by the Owner.

- 3.3 The Contractor shall develop a Maintenance of Traffic plan in accordance with the Construction Drawings, MDOT Standard Specifications, Michigan Manual on Uniform Traffic Control Devices, and applicable City of Kalamazoo ordinances and submit it to the Owner for review a minimum 14 days prior to Mobilization.
- 3.4 The MOT plan shall at a minimum maintain safe passage of vehicles and pedestrians on Lovers Lane for the duration of construction. The plan shall also allow for safe weekend access to Milham Park as directed by the Owner.
- 3.5 The Contractor shall confirm availability of the staging and storage limits shown on the drawings with the Owner prior to mobilization. The Contractor may request adjusted staging and storage location but shall only use different staging and storage areas with approval from Owner and owners of property on which staging and storage areas are located.
- 3.6 The Contractor may arrange staging and storage on adjacent privately-owned property if approved by the property owner. The Contractor shall be responsible for securing all necessary access agreements with private property owners.
- 3.7 Safety fence shall be installed where indicated in the Construction Drawings.
- 3.8 The Contractor shall protect trees with safety fence as indicated in the Construction Drawings.
- 3.9 The Contractor shall not clear trees or remove miscellaneous structures or materials outside the indicated Limits of Disturbance without approval from the Owner.
- 3.10 If unexpected utility lines, pipes, or other infrastructure is encountered, the Contractor shall immediately stop work and contact the Owner.
- 3.11 Final cleanup following the completion of construction is incidental to this item. All refuse material generated by construction activities, including trash, construction stakes, construction fencing, excess construction debris, demolition debris unsuitable for on-site disposal, etc. shall be removed and disposed of off-site in a manner acceptable to local governing laws and regulations.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 Payment for Mobilization and Site Preparation shall be Lump Sum in amount identified in the Bid Schedule and shall be considered full compensation for all material, labor, equipment, and incidentals necessary to complete the Work
- 4.2 Demobilization from the site shall be incidental to this item. If the Contractor elects to demobilize and remobilize before completion of the Work, no additional payment will be made.
- 4.3 No payment will be made for the Contractor's mobilization until the following work has been completed:

- A. Approved schedule
 - B. Provide sanitary facilities or sanitary facilities secured from Owner
 - C. Temporary traffic control signage installed
- 4.4 At such time after the Contractor has mobilized to the site, 50 percent of the Bid Amount for 02-00-01 will be payable to the Contractor. At such time after Contractor has demobilized from the site and completed site restoration, the remaining 50 percent of the Bid Amount for 02-00-01 will be payable to the Contractor.

END OF SECTION

SECTION 02-00-02
CONSTRUCTION ENTRANCE

PART 1 - GENERAL

1.1 SUMMARY

- A. This specification covers furnishing all materials, equipment, and labor for unclassified excavation and bedding required for construction and maintenance of stabilized construction entrances as required by the Plans or as directed by the Engineer or Owner.

1.2 REFERENCES

- A. All portions of the following MDOT Standard Specifications for Construction apply to this section, with the following provisions.
- B. Road Earthwork, Section 205.
- C. Soil Erosion and Sedimentation Control, Section 208
- D. Geotextile for Base, Section 308
- E. Aggregates, Section 902
- F. Geosynthetics, Section 910

PART 2 – PRODUCTS

- 2.1 Materials used in construction shall be dense graded aggregate 21AA, coarse aggregate 3X1, coarse aggregate 6A, or alternate approved by the Engineer. Slag and recycled aggregate will be rejected.
- 2.2 Geotextile fabric underlayment shall be a pervious sheet of non-woven propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

Physical Property	Requirements
Weight	8-12 oz/syd
Filtering Efficiency	75%
Tensile Strength at 20%	50 lbs./linear inch (minimum)
Flow Rate	3 gal./sq.ft./min. (minimum)

Geotextile filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0°F to 120°F.

PART 3 – EXECUTION

- 3.1 Stabilized construction entrances shall be used at all points where traffic will be leaving a construction site and moving directly onto a public road. New installation may not be required if an existing entrance has suitable material to prevent the tracking of mud onto public roads. Approval must be obtained from the Engineer or Owner if new installation is to be non-performed. If new installation is non-performed, rework of an existing entrance may be required by the Owner at a reduced rate of payment for a stabilized construction entrance. If washing is used, provisions shall be made to intercept the wash water and trap the sediment before it is carried offsite or into a natural or constructed stormwater conveyance. Washdown facilities shall be required as directed by the Engineer or Owner. Washdown areas in general must be stabilized with crushed gravel and drain into a temporary sediment trap or sediment basin. Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by vehicles.
- 3.2 Inspect entrances every seven (7) calendar days and within 24-hours after each rainfall that produces 0.5 inches or more precipitation, or after heavy use. Check for mud and sediment buildup and pad integrity. Make daily inspections during periods of wet weather. Maintenance is required more frequently in wet weather conditions. Reshape the stone pad as needed for drainage and runoff control.
- 3.3 Wash replace stones as needed and as directed by the Engineer or Owner. The stone in the entrance should be washed and replaced whenever the entrance fails to reduce mud being carried off-site by vehicles.
- 3.4 Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
- 3.5 Repair any broken pavement immediately.
- 3.6 Inspect and clean sediment traps immediately following each rainfall.
- 3.7 Dispose of sediment in a suitable area in such a manner that it will not erode.
- 3.8 Remove stabilized construction entrances as soon as they are no longer needed to provide access to the site. Bring the disturbed area to grade, and stabilize it using appropriate permanent stabilization methods, including vegetation. Removal of the construction entrances and restoration of the construction area is part of this item.

END OF SECTION

SECTION 02-00-03
CONSTRUCTION LAYOUT AND STAKING

PART 1 - GENERAL

1.1 SUMMARY

- A. This item shall consist of furnishing, placing, and maintaining construction layout stakes, including, but not limited to, bankfull stakes, centerline stakes, and structure locations necessary for the proper execution of the work under the contract.

1.2 REFERENCES

- A. All portions of the following MDOT Standard Specifications for Construction apply to this section, plus the following provisions.
- B. Preservation of Land Monuments, Control Points, and Property Corners, Section 821.
- C. Constructor Staking, Section 824

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

- 3.1 The Contractor shall ensure that all construction staking is performed under the direct supervision of a Professional Land Surveyor, licensed in the State of Michigan. Survey point closure standards shall be Fourth Order horizontal (1:2500) and Fourth Order vertical (0.10 ft)
- 3.2 Contours and elevations shown in the Construction Drawings are based on topographic survey and field-collected channel data and is believed to be the best available information for the site. The Contractor is responsible for verifying existing elevations and grades, including those under water, prior to construction.
- 3.3 Verification shall consist of a comparative cross section survey of the project area, performed by a surveyor licensed to practice in the State of Michigan.
- 3.4 At the completion of Work, the Contractor shall submit a record set of as-built drawings to the Engineer for approval. This work is considered incidental to the Contractor's price. These as-built drawings shall show all deviations from the original design. These drawings shall be marked in red ink on a blackline or blue-line set of drawings and shall be stamped by an engineer and/or surveyor licensed to practice in the State of Michigan.
- 3.5 The removal of layout stakes at the completion of the work is a final cleanup item that

is required as a condition of full payment for Demobilization.

END OF SECTION

SECTION 02-00-04
SOIL EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 CONTRACTOR RESPONSIBILITIES

- A. NPDES Construction Site Soil Erosion and Sedimentation Control (SESC) Log:
If the area of disturbance is more than 5 acres, the Contractor must submit a Notice of Coverage to the Michigan Department of Environment, Great Lakes and Energy and maintain an SESC inspection log on-site and available for Public review under the Permit-By-Rule. The Owner's Representative shall be provided with a copy of the log upon project completion.
- B. SESC Permit:
The Contractor shall be responsible for the application and fees for a Soil Erosion and Sediment Control Permit from the City of Kalamazoo, MI and shall abide by the requirements set forth in the SESC Plan and SESC Permit.

1.2 REFERENCES

- A. All portions of MDOT Standard Specification 208 – Soil Erosion and Sedimentation Control apply to this section, with the following provisions

1.3 DESCRIPTION OF WORK

- A. The Contractor shall do all work and take measures necessary to control soil erosion resulting from construction operations, shall prevent the flow of sediment from the construction, and shall contain construction materials (including excavation and backfill) within his protected working area so as to prevent damage to the adjacent wetlands or water courses.
- B. The Contractor shall not employ any method that violates a rule, regulation, guideline, or procedure established by Federal, State or local agencies having jurisdiction over the environmental effects of construction.
- C. SESC activities shall be in accordance with MDOT Standard Section 208. Pollutants such as chemicals, fuels, lubricants, bitumen, raw sewage and other harmful waste shall not be discharged into or alongside of any body of water or into natural or man-made channels thereto.

1.4 CONSTRUCTION ACTIVITIES

- A. The Contractor shall keep onsite the following:
 - 1. A copy of the EGLE Joint Permit.
 - 2. A soil erosion and sediment control maintenance log book.

- B. The maintenance log book shall identify the following:

1. A list of every Best Management Practice (BMP) on the project.
 2. The Contractor schedule for inspecting and reviewing each BMP.
 3. The condition of each BMP following any scheduled inspection or significant storm event.
 4. The Contractor action for repairs, replacement, etc., for each BMP following any scheduled inspection or significant storm event.
 5. Any comments pertinent to the performance of the entire SESC Plan in general and any BMPs in particular.
 6. The Contractor shall submit the maintenance log schedule to the Owner/Engineer for review and approval prior to beginning construction.
- C. During the entire construction period, the Contractor's superintendent, or other duly authorized representative, shall:
1. Inspect all BMPs as listed in the log book.
 2. Note the condition and performance of each BMP.
 3. Take corrective action for each BMP, as required.
 4. The inspection should take place every seven days or after a rain one-half inch or more in depth.
- D. The COR shall also inspect the BMPs at regular progress meetings or other normal intervals, just as they would inspect the basic construction work. They shall enforce construction standards for these BMPs.
- E. During the construction period, the Contractor will promptly repair, rebuild, replace, clean out, or otherwise modify any BMPs that require attention or that do not perform as required. The Contractor will note in the maintenance log what maintenance or reconstruction was required and any action taken.
- F. For any BMPs that do not appear to perform as designed, the Contractor shall notify the COR for review. If the COR determines that a BMP needs to be redesigned or replaced with another more appropriate BMP because of actual field performance or otherwise, upon approval Contract Administration, the COR will have those design changes made and provide to the Contractor for construction. If this requires measurable additional work above the specified scope of work, the Contractor may request a Change Order for the work.
- G. Upon completion of the project and once final vegetative cover has been established to the satisfaction of the COR, the Contractor will remove all BMPs, and restore the disturbed portions of the project to the final contour.
- H. The Contractor shall use any of the acceptable methods necessary to control soil

erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of silt fences, hay bales, water diversion structures, temporary re-vegetation, diversion ditches and settling basins.

- I. Construction operations shall be restricted to the areas of work indicated on the Plans and to the area which must be entered for the construction of temporary or permanent facilities. The COR has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow, and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of wetlands and adjacent watercourses. Such work may involve the use of temporary mulches, mats, or other control devices or methods necessary to control erosion.
- J. Excavated soil material shall not be placed in or adjacent to wetlands or watercourses in a manner that will cause it to be washed away by high water or runoff. Earth berms or diversions shall be constructed to intercept and divert runoff water away from critical areas. Diversion outlets shall be stable or shall be stabilized by means acceptable to the COR. If for any reason construction materials are washed away during the course of construction, the Contractor shall remove those materials from the fouled areas as directed by the COR.
- K. All materials and equipment shall be kept outside the limits of the easements or rights-of-way except for temporary access roads as noted on the plans.
- L. The Contractor shall not pump silt-laden water from trenches or other excavations into wetlands, or adjacent watercourses. Instead, silt-laden water from excavations shall be discharged within areas surrounded by baled hay or into sediment traps or ensure that only sediment-free water is returned to the watercourses. Damage to vegetation by excessive watering or silt accumulation in the discharge area shall be avoided.

PART 2 - PRODUCTS

2.1 Unless otherwise specified in these Technical Specifications, provide erosion control materials in accordance with the requirements of MDOT Specifications Section 922

2.2 TEMPORARY SEED

Temporary seed species for surface erosion control or over-seeding shall be in accordance with Table 1 on plan sheet C 008. Seed labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act shall be furnished. The mixing of seed may be done by the seed supplier prior to delivery, or on site as directed. Substitutions will not be allowed without written request and approval from the COR. Seed that is wet or moldy or that has been otherwise damaged in transit or storage will not be accepted. Acceptable temporary seed species and seeding rates are shown on the plans.

2.3 TEMPORARY STRAW MULCH

Straw mulch for this item shall be small-grain straw free of weeds, disease, and rot; certified as "Weed Free". Straw mulch obtained from regular farming operations is

not free of weeds and will be rejected. Straw shall be oat, wheat, rye, barley, or rice stalk. Straw stock shall be in air-dry condition and of a suitable consistency to be broadcast by commercial mulch-blowing equipment or hand spreading.

PART 3 - EXECUTION

Unless otherwise specified in these Technical Specifications, Contractor shall provide erosion control in accordance with the requirements of MDOT Specifications Section 208, plans, and the permits.

END OF SECTION

SHEET PILE WEIR REMOVAL
SECTION 02-00-05

PART 1 - GENERAL

1.1. SUMMARY

- A. This work consists of removing and disposing of the sheet pile weir impounding Portage Creek in Milham Park as indicated in the Construction Drawings. Work shall include weir notching, backwater drawdown, sheet pile removal and disposal, and abutment demolition and debris disposal.

1.3. REFERENCES

- B. All portions of the following MDOT Standard Specifications for Construction apply to this section, with the following provisions.
- C. Removing Miscellaneous Structures and Materials, Section 204.
- D. Steel Sheet Piling and Cofferdams, Section 704.

1.4. SUBMITTALS

- A. The Contractor shall submit a drawdown and demolition plan to the Owner and Engineer for approval prior to commencing work.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

- 3.1. Blasting and the use of explosives is not allowed on this project.
- 3.2. The sheet pile weir shall be removed in its entirety from Portage Creek, including portions below grade. Sheet pile may be removed by cutting or by vibratory extraction.
- 3.3. Begin weir removal by notching sheet pile or removing stoplogs to draw down the impounded portion of Portage Creek. Drawdown rate shall be no greater than a reduction of 6 inches of pool elevation per 24 hours. Iteratively expand notch or remove additional stoplogs to continue drawdown until Portage Creek water surface elevation immediately upstream of the weir matches that downstream of the weir.
- 3.4. Remove remaining sheet pile. Sheet pile demolition debris shall be captured, removed from the riverbed, and disposed of off-site in a manner acceptable to local governing laws and regulations.
- 3.5. Demolish concrete abutments as necessary to allow installation of structures or to meet propose grades and as shown in the Construction Drawings. Concrete demolition may be performed by mechanical means only; no blasting is allowed. Abutments shall be removed to a depth of one foot below proposed finished grade.

- 3.6. Cut exposed steel reinforcing bar flush with finished concrete surface such that no sharp edges or protruding metal remains.
- 3.7. Abutment demolition debris shall be captured, removed from the riverbed, and disposed of off-site in a manner acceptable to local governing laws and regulations.
- 3.8. The vertical tolerance for demolished structures is +/- 2.0 inches.

END OF SECTION

SECTION 02-00-06
BULK EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. The Work covered by this special provision consists of all items related to bulk excavation, transport, stockpile, and fill within the proposed channel and floodplain areas. Topsoil harvest and stockpile, and harvest and stockpile of native channel materials is included in item, as is export of excess cut is incidental to this item. Overexcavation related to structure installation is considered incidental to those items. All work shall conform to the lines, grades, and typical cross sections shown on the plans. The Contractor shall use standard "heavy" construction equipment to perform the work as described in the construction documents.

1.2 All portions of MDOT Standard Specification Section 205 – Roadway Earthwork apply, with the following provisions.

PART 2 - PRODUCTS

- 2.1 Channel banks shall be constructed of "on-site" material including but not limited to soil, rocks, cobble, gravel, sand, and silt. Material shall be free of refuse, stumps, roots, root mats and other unsatisfactory material.
- 2.2 Approved materials consist of native soils excavated on-site. Topsoil shall not be used as fill material but is suitable for top-dressing. Soils used for fill shall be consistent with soils found adjacent to fill sites. Organic material should be avoided as fill material adjacent to new channel, but may, in limited quantities, be used to fill old channel when done so away from new channel. Undesirable materials include, but are not limited to, debris or any excavated material that has not been approved for use as fill.

PART 3 – EXECUTION

- 3.1 Excavation shall be accomplished by mechanical means. No blasting will be allowed. Any property damage caused by rock excavation operations shall be the responsibility of the Contractor. Excavation shall be shaped and graded as shown on the Construction Drawings.
- 3.2 Channel horizontal and vertical control is tied to the proposed channel thalweg. Directions "left" and "right" are determined relative to the channel as if facing downstream. Channel construction shall proceed from upstream to downstream.
- 3.3 All clearing and grubbing operations within the proposed channel limits, shall be performed prior to the start of channel construction operations except when the woody material is located on or within an existing stream bank and is providing stability to that stream bank. Grubbing of these areas shall be completed concurrently with channel construction operations. The Contractor shall excavate and shape the channel to the

dimensions, lines, grades and typical sections shown on the plans. Over excavation of the channel bottom and/or banks shall be limited to the location of proposed project structures.

- 3.4 Suitable excess material shall be sorted and stockpiled for the construction of various project elements. Excess material shall be disposed of at the "on-site" locations identified on the plans or identified by Owner.
- 3.5 Construction equipment and personnel shall be routed to prevent impacts to the completed work. The Contractor shall maintain and repair all constructed channel slopes and grades throughout the duration of the project until permanent seeding and final acceptance.
- 3.6 Proposed channel segment(s) constructed on a new alignment, outside the limits of the existing channel, may be constructed completely or partially "in the dry" prior to allowing flow to enter into the newly constructed stream channel. If the proposed channel excavation and grading work is within or partially within the banks of the existing channel section Contractor may work completely and/or partially "in the wet" and/or they may pump-around to facilitate construction of the channel "in the dry." The use of temporary pump-around measures shall be at the Contractor's expense.
- 3.7 When working within and/or partially within the existing channel the Contractor shall grade the channel to maintain baseflow without temporary pumping overnight, over weekends, and holidays. Prior to predicted rain events of greater than 0.5 inches the Contractor shall temporarily grade the bed and banks to allow in-stream flows to continue thru the stream segment under construction. If the Contractor is working in off alignment channel sections the area shall be dewatered prior to tie-in with the active stream channel.
- 3.8 DISPOSAL
 - A. Excess and unsuitable material, i.e. that which cannot be used in proposed structures, soil lifts, or bank and fine grading shall be properly disposed of offsite by the Contractor. The Contractor should anticipate encountering rubble and other uncharacterized materials and debris during excavation. All debris and rubble shall be properly disposed of offsite in a manner acceptable to local governing laws and regulations.
 - B. The Contractor shall submit proposed disposal sites to the Owner for review a minimum of 30 days in advance of removing excess material from the site. The Contractor shall submit copies of licenses and permits from local, state, and/or federal governing authorities allowing the proposed disposal site to accept the excess material. The proposed disposal site may be subject to inspection by the Owner at any time during execution of the work.

END OF SECTION

SECTION 02-00-07
FINE GRADING

PART 1 GENERAL

1.01 SUMMARY

- A. This specification covers surveying of baselines and grades, temporary stockpiling of excavated material, channel and bank grading to the proposed finish grades and grading of the floodplain to post-construction contours shown on the Construction Drawings.

1.02 REFERENCES

- A. All portions of MDOT Standard Specification Section 205 – Earthwork apply, with the following provisions.

PART 2 PRODUCTS

2.01 CLASSIFICATION

- A. Materials expected to be encountered during excavation are native floodplain soils and deposits from Portage Creek, and native channel alluvium. All excavation shall be considered common excavation and shall not be classified by material type.

PART 3 EXECUTION

- 3.01 Grading shall be accomplished by mechanical means.
- 3.02 The finished ground surface shall be within plus or minus 0.2 foot of the established grade after it has been graded to a uniform surface per the plans, unless otherwise specified in the plans. The grade shall transition evenly between control points, contours and existing grades. Correction of grade is required wherever settlement, erosion or other grade changes have occurred prior to acceptance.
- 3.03 In locations where tree roots, culverts, and/or in-stream structures extend above the proposed finished grade, the finished grade shall tie into the limits of the feature at the elevation of the surrounding grades.
- 3.04 Grading shall meet the grades and lines shown in the drawings or provided in electronic .dwg format files.

END OF SECTION

SECTION 020008
BRUSH TOE

PART 1 - GENERAL

1.1 SUMMARY

- A. Brush Toe is a bank stabilization structure intended to resist erosion in the active channel and support the reconstructed bank above. This item includes furnishing all materials, equipment, and labor for installing the Brush Toe structure as shown in the Construction Drawings or as directed by the Engineer. Overexcavation for structure installation is incidental to this item.

1.2 REFERENCES

- B. All portions of the following MDOT Standard Specifications for Construction apply to this section, with the following provisions.
- C. Excavation and Backfill for Structures, Section 206
- D. Slope Protection, Section 813
- E. Landscaping, Section 815

PART 2 – PRODUCTS

- 2.1. Woody material shall be hardwood or pine procured on-site or may be imported as approved by Owner or Engineer and free from invasive species of trees or shrubs unless otherwise authorized in writing by Owner or Engineer.
- 2.2. Select Coarse Rock Backfill Material shall be native channel cobble, gravel, and fines. If suitable material is not available on-site, the Contractor may propose a substitute material meeting applicable material specifications in MDOT Standard Specification Section 902 – Aggregates for approval by the Owner and Engineer.

PART 3 - EXECUTION

- 3.1. Excavate the existing bank and bed to install Brush Toe, as indicated in the construction drawings. Refer to the cross sections within the Construction Drawings for the proper typical elevations.
- 3.2. Wood installation shall proceed from upstream to downstream. The amount of toe wood installation shall be limited to 50 feet for a single construction crew to facilitate the preservation and incorporation of existing channel vegetation into channel fill.
- 3.3. The contractor shall install footer logs, at staking limits, forming a single continuous line

parallel to the flow. The footer logs shall be pushed into the soil to an elevation matching the invert of the channel bed with any attached root balls facing upstream.

- 3.4. After installation of the footer log, the contractor shall install woody material in a minimum of 6 inch lifts perpendicular to the channel flow. For locations where the water cannot be diverted and/or pumped around, the woody material may begin to float once installed. The contractor shall add temporary counter weight on top of the woody material and root wads to prevent floatation and material movement prior to completing the toe wood installation.
- 3.5. The contractor shall place rock material over the surface of the woody debris to a depth of 6 inches. The contractor shall use water from the stream to wash rock material into the woody debris. The rock material shall be completely saturated and the woody debris shall be free of voids. The contractor shall tamp the woody debris and rock material with the bucket of the excavator to fully compact the material.
- 3.6. The contractor shall repeat 3.4 and 3.5 alternating woody debris and rock material until the woody debris reaches the specified control point elevation.
- 3.7. Place a layer of 6.7 feet wide 700 gm/m² woven coir erosion control blanket, and then s150 straw blanket, or equivalent, on top of the brush toe such that a minimum of 2 feet of the blanket will be buried below the soil wrap. Allow the remaining 4.5 feet of blanket to hang over the brush toe.
- 3.8. Place soil backfill up to the lift height specified, which shall not exceed 1.5 ft, being careful not to push/pull or tear the blanket previously placed.
- 3.9. Top dress the soil lift with topsoil from the face of the soil lift back into the floodplain at least 4ft.
- 3.10. Sprinkle seed mix on face of soil lift. Wrap the face and top of the soil lift using the coir erosion control blanket and straw blanket hanging over the brush toe.
- 3.11. Pull erosion control blanket as tight as possible without tearing or excessively distorting the fabric. Secure the coir erosion control blanket in place by staking the end of the blanket with wooden stakes on 1.5-foot centers. Live stake lift per the details and Section 02-00-13 of these specifications.

END OF SECTION

SECTION 02-00-09
TOE WOOD

PART 1 - GENERAL

2.1 SUMMARY

- A. Toe Wood is a structure, consisting of logs, rootwads, and coarse woody debris to reinforce the outer stream bank along a bend. The structure begins below the thalweg elevation and continues up to bankfull stage. This toe treatment is to be used in concert with sod mats or soil wraps. This work consists of the harvest, transport, maintenance, and installation of all materials listed in this detail and as specified on the Plans or as directed by the Engineer. Overexcavation for structure installation is incidental to this item.

2.2 REFERENCES

- A. All portions of the following MDOT Standard Specifications for Construction apply to this section, with the following provisions.
- B. Excavation and Backfill for Structures, Section 206
- C. Slope Protection, Section 813
- D. Landscaping, Section 815
- E. Geosynthetics, Section 910

PART 2 - PRODUCTS

2.3 FOOTER LOGS AND ROOT WADS

- A. Footer logs and root wads shall have diameters of 8 to 12 inches and a minimum length of 12 feet. Logs shall be free of rot and decay. The Contractor should assume all footer logs and root wads required for the structure will be imported from offsite.

2.4 WOODY DEBRIS

- A. Woody debris shall be gathered from onsite trees and woody plants. Smaller woody material may be branches and tops from trees and plants. The contractor should assume that all woody debris required for the structure will be imported from offsite.

2.5 GEOTEXTILE FABRIC

- A. Geotextile fabric for this item shall be type I non-woven geotextile fabric conforming to MDOT Specification Section 910 and shall be certified by the manufacturer or supplier.

PART 3 - EXECUTION

2.6 INSTALLATION

- A. Construct Wood Toe structures by first shaping the bankfull channel to the grades specified and per Section 31 22 00 - Grading. Next excavate the outer meander bend as indicated in the Construction Drawing detail.
- B. Place Footer Logs in the pattern shown on the details, pointing downstream at 20° to 30° angles. Place root wads cantilevered on top of footer logs, perpendicular to flow.
- C. Fill areas between root wads with coarse woody debris, then place a layer above root wads to the thickness indicated in the details. Coarse woody debris shall be constructed with the largest material placed first. Logs shall not be placed parallel to the flow of water unless directed by engineer. Logs shall be placed in a crossing pattern or weave such that each log is anchored by another log or small woody debris.
- D. Place a layer of small/fine woody debris above the coarse woody debris to the thickness indicated in the details. Small woody debris shall consist of medium to small limbs and can be branches, bushes, and/or logs. Invasive species shall not be used. Place small/fine woody debris with the largest material being placed first and the smallest material placed last.
- E. All woody debris shall be compacted with the excavator bucket in order to reduce the presence of voids in the small/fine woody debris layer.
- F. The horizontal locations of all woody debris are shown on the plan/profile sheets and structure tables and will be provided to the contractor during stakeout. No locations of woody debris shall vary from the plan locations without direction from the engineer.
- G. Install Type I non-woven geotextile above the highest elevation of the woody debris before the soil lifts are installed. Type I geotextile fabric is incidental to construction.
- H. Place a layer of 6.7 feet wide 700 gm/m² woven coir erosion control blanket, and then s150 straw blanket, or equivalent, on top of the brush toe such that a minimum of 2 feet of the blanket will be buried below the soil wrap. Allow the remaining 4.5 feet of blanket to hang over the brush toe.
- I. Place soil backfill up to the lift height specified, which shall not exceed 1.5 ft, being careful not to push/pull or tear the blanket previously placed.
- J. Top dress the soil lift with topsoil from the face of the soil lift back into the floodplain at least 4ft.
- K. Sprinkle seed mix on face of soil lift. Wrap the face and top of the soil lift using the coir erosion control blanket and straw blanket hanging over the brush toe.

- L. Pull erosion control blanket as tight as possible without tearing or excessively distorting the fabric. Secure the coir erosion control blanket in place by staking the end of the blanket with wooden stakes on 1.5-foot centers. Live stake lift per the details and Section 02-00-13 of these specifications.

END OF SECTION

THIS PAGE INTENTIONALLY LEFT BLANK.

SECTION 02-00-10
VARIABLE CONSTRUCTED RIFFLE

PART 1 - GENERAL

1.1 SUMMARY

- A. The Variable Constructed Riffle is located in the base-flow portion of the channel and is comprised of logs, boulders, and harvested riffle rock. The logs are placed in the base-flow portion of the channel. The pattern created is a partially sinuous channel through the riffle. Harvested riffle rock shall be placed in the base flow sinuous channel creating a firm channel bed. The Work consists of preparing areas at which Variable Constructed Riffles are to be placed; excavation of channel material; placement of logs, boulders and cobble/gravel substrate; and finishing banks, structure slopes, and stream channel at the locations specified on the plans to provide grade control for the newly constructed channel. Overexcavation required for structure installation is incidental to this item.

1.2 REFERENCES

- A. All portions of the following MDOT Standard Specification Excavation and Backfill for Structures, Section 206 apply to this section, with the following provisions.

PART 2 - PRODUCTS

- 2.1. Subpavement is required in fill areas where the existing bed material is not suitable for supporting the pavement layer. Subpavement material shall consist of rounded glacial gravel, sands and fines. The Engineer shall make the final determination regarding required use of subpavement shall be used, based on site conditions during construction. Contractor shall assume that subpavement is required unless otherwise authorized by Engineer.
- 2.2. Riffle material (pavement) shall be comprised of rounded glacial material and wood. The rock material shall consist of approximately 15% small boulder (10"-18" in diameter), 30% large cobble (5"-10" in diameter), 25% small cobble (2.5"-5" in diameter), 25% gravel (0.25"-2.5" in diameter), and 5% sand/soil material. Native gravel or cobble material excavated during channel construction elsewhere on this project may be used, provided it meets the above criteria. Slag or recycled aggregate will be rejected.
- 2.3. Logs and woody debris shall have a diameter of 8 to 15 inches and length of 6 to 10 feet.

PART 3 - EXECUTION

- 3.1 Construct the Variable Constructed Riffle by first shaping the channel to the approximate grades specified. Lay out the subpavement material to a thickness of 10 to 12 inches below the proposed riffle material if determined necessary by the Engineer.
- 3.2 After subpavement is installed and confirmed suitable, install riffle material composed

of specified rock and wood to a thickness of 12 to 18 inches.

- 3.3 The riffle material shall transition into the proposed bed and banks upstream and downstream of the structure and along the proposed channel banks.
- 3.4 Riffle material shall be finish graded in a manner to create a smooth profile, with no abrupt “jump” transition between upstream pool-glide and riffle, and likewise no abrupt “drop” transition between riffle and downstream run-pool. Transitions shall match the profile shown on the plans.
- 3.5 The finished cross-section of the riffle material shall generally match the shape and dimensions shown on the riffle typical section with some variability of the thalweg location as a result of the small pools logs and boulders.
- 3.6 Some excavation of channel material and channel re-dressing may be necessary to achieve the correct grades. This shall be considered incidental to construction of the Variable Constructed Riffle.

END OF SECTION

SECTION 02-00-11
EROSION CONTROL BLANKET

PART 1 - GENERAL

1.1 SUMMARY

- A. This specification covers all items related to installation of erosion control blanket after seeding, including securing the blanket to exposed surfaces.

1.2 REFERENCES

- A. All portions of the following MDOT Standard Specification Soil Erosion and Sedimentation Control, Section 208 apply to this section, with the following provisions.

PART 2 – PRODUCTS

- 2.1. Wood Stakes 2"x2"x18" notched hardwood stakes or approved equivalent.
- 2.2. Erosion control blanket for this item shall be biodegradable double-net 70%straw/30% coir rolled erosion control product (RECP) such as NAG SC150BN or approved equivalent. For soil-encapsulated lifts above toe wood or brush toe, use either an approved double-net RECP such as NAG C700BN (700 g/m² woven coir fiber netting over 37 g/m² jute blanket) or 700 g/m² woven coir fiber netting over biodegradable straw/coir blankets. Substitutions for erosion control blanket shall be approved by the Engineer in writing.

PART 3 - EXECUTION

- 3.1 Where indicated on the Drawings or as directed, surface erosion control blankets shall be installed. Seed and mulch shall be spread prior to placement of the blanket. Placement of the material shall be accomplished without damage to installed material or without deviation to finished grade.
- 3.2 Erosion control blankets shall be used on all slopes that are 4-horizontal to 1-vertical, or steeper and where indicated on the drawings.
- 3.3 Prepare soil, sow seed and place straw where blanket is to be installed prior to installing erosion control blanket.
- 3.4 Blanket shall be laid parallel to flow. Overlap between adjacent runs of blanket shall be a minimum of six (6) inches. Blanket shall overlap in the downstream direction parallel to flow and down-slope perpendicular to flow. The top of the blanket shall be buried in a 6-inch deep trench and secured with 18-inch wooden stakes. The stakes shall be installed at a rate consistent with manufacturer recommendations. If, after staking the

blanket, it is possible to lift the blanket away from the soil by hand pulling, additional stakes shall be applied until the fabric is secured.

- 3.5 Blanket shall be secured to the ground such that blanket does not separate from ground more than one (1) inch with a reasonable tug. Additional wooden stakes will be required if blanket fails this test.
- 3.6 Terminal ends of blanket shall be secured by wooden stakes spaced six (6) inches apart.
- 3.7 Where bank stability treatments are not called out on the Plans, erosion control blanket shall be placed along the outside of all bends and along both sides of the channel at riffles. Blanket shall extend a minimum of six (6) feet beyond the top of bank.
- 3.8 All other uses for Erosion Control Blanket are as specified in the appropriate detail.

END OF SECTION

SECTION 02-00-12
SEEDING AND MULCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This specification includes all items related to soil preparation, mulching, cover crop seeding, and permanent native seeding within the planting zones specified on the Construction Drawings.

1.2 REFERENCES

- A. All portions of the following MDOT Standard Specification Section 816, Turf Establishment, apply to this section, with the following provisions.

1.3 WARRANTY

- A. The Contractor shall maintain a 24-month, 85 percent areal coverage of permanent seeding and mulching measured per 1,000 square foot area. The period of care and replacement shall begin after final inspection and approval of the initial placement of native seed and mulch. The Contractor shall be responsible for reseeding all areas achieving less than an 85 percent canopy coverage rate or areas exceeding 4 square feet of bare earth, prior to the end of the growing season (October) of the second year following completion of seeding. The Contractor will not be responsible for seeded and mulched areas that have been damaged by vandalism, fire, flooding or other activities beyond the Contractor's control and responsibility.
- B. It will be the Contractor's responsibility to supply water or overseed during the maintenance period if required to meet the warranty requirements. Any costs associated with supplying water shall be the responsibility of the Contractor and shall be considered incidental to this item.

PART 2 – PRODUCTS

- 2.1 Seed mixes and rates shall be approved prior to installation and must be appropriate for the specific site conditions. A mesic to wet prairie mix from the seed suppliers below is generally assumed to be acceptable. Contractor may request the use of a seed mix by a supplier other than those specified but use of such a mix must be approved in writing by Owner prior to delivery of seed to site. The Contractor shall submit the seed vendor's certificate for each seed mix and the shipping list to the Owner prior to planting. Streambank and floodplain areas shall not be planted until contributing drainage areas have been stabilized and approved by the Owner or Engineer.

Planting Zone 1 and 2 seeding areas shall correspond to the Planting Plan Sheet C-400 (Sheet 10 of 15). All other disturbed areas shall be stabilized with the Zone 2 seed mix. If seeding cannot be completed until after October 15, then apply winter wheat at a rate of 5 lb/1,000 sft as incidental to the cost of soil erosion and sedimentation control. Apply

permanent seeding after May 1 or when temperatures routinely exceed 50°F.

The Planting Zone 1 Native Seed Mix shall be a mesic to wet prairie mix supplied by one of the following approved suppliers:

Cardno Native Plant Nursery

128 Sunset Drive
Walkerton, Indiana 46574

Spence Restoration Nursery

2220 East Fuson Road
Muncie, IN 47302

Ohio Prairie Nursery

PO Box 174
Hiram, OH 44234

Ernst Seeds

8884 Mercer Pike,
Meadville PA 16335

Seed mix for Zone 1 shall, at a minimum, contain 8 different species of native forbs and 8 different species native grasses/sedges/rushes. Seed mix for Zone 1 shall be applied at a Pure Live Seed rate as specified by the supplier. Cover crop, as recommended by seed supplier, shall be applied at time of seeding and shall be considered incidental to this item.

Planting Zone 2 Turf Seed Mix shall contain of the following applied at a rate of 5-7

lb/1,000 sft:

40% Creeping red fescue

30% Annual rye grass

20% Perennial rye grass

10% Kentucky bluegrass

PART 3 - EXECUTION

- 3.1 Seasonal timing of permanent seeding and mulching shall be in accordance with this specification and seed provider recommendations and warranty. Construction seeding and mulching shall be performed as specified under MDOT Standard Specification 816 – Turf Establishment, Subsection 816.03.C.1, per plan.
- 3.2 Streambank and floodplain areas shall not be planted until contributing drainage areas have been stabilized and approved by the Engineer.
- 3.3 All areas to be seeded and mulched shall conform to the finished grades as specified on the Construction Drawings, and be free of trash, debris, clods, and foreign materials. All gullies, washes, or disturbances that develop after finish grading operations shall be repaired prior to planting and are incidental to this item.

- 3.4 Fertilizer shall not be applied.
- 3.5 Topsoil shall be applied on temporary access roads and staging areas and where indicated on the Construction Plans.
- 3.6 Do not place seed and mulch on frozen ground.
- 3.7 Mulching shall be performed using straw mat or straw mulch. Mulch shall be applied at a rate of 2 tons or 90 bales per acre.

END OF SECTION

SECTION 02-00-13
LIVE STAKES

PART 1 GENERAL

1.01 SUMMARY

- A. This Specification covers harvesting, transporting, installing, and maintaining live stake materials as specified on the Construction Drawings or as directed by the Engineer.

1.02 REFERENCES

- A. All portions of MDOT Specification Section 815 – Landscaping apply to this section, with the following provisions.

1.03 WARRANTY

- A. The Contractor shall maintain an 18-month, 50 percent care and replacement warranty for all live stakes. The period of care and replacement shall begin after inspection and approval of the initial installation of all live stakes and continue for 18-months, with one potential replacement period during the first dormant season following the end of the warranty period. The Contractor will not be responsible for live stakes that have been damaged by vandalism, fire, flooding or other activities beyond the Contractor's control.
- B. Contractor may support establishment of live stakes by supplying water during the warranty period. Any costs associated with supplying water shall be the responsibility of the Contractor and shall be included in the unit cost of the live staking installation.
- C. Should less than 50 percent of live stakes be living at the end of the warranty period, Contractor shall be responsible for replacing a number of live stakes equal to the number which have died during the warranty period. Owner may utilize a means of assessing survival of live stakes through representative sampling of transects or plots at the site and extrapolating the survival of live stakes to estimate the total number of living/dead stakes at the end of the warrant period.

PART 2 PRODUCTS

2.01 GENERAL

- A. Live cuttings for live stakes shall be 0.5 to 1.5 inches in diameter and 2.5 to 4.0 feet in length. Side branches shall be removed and the bark left intact prior to installation. Buds on the stakes shall be oriented in an upward position. The basal ends shall be cut at a 45-degree angle for easy insertion into the soil. The top shall be cut smooth and square without cracks.

- B. Live stakes shall consist of an even mix of red-osier dogwood (*Cornus sericea*), silky dogwood (*Cornus amomum*), elderberry (*Sambucus canadensis*), and sandbar willow (*Salix exigua*). Any proposed species substitutions or changes in percent composition of species shall require prior written approval by the Engineer. Only specified tree species or accepted substitution native species will be accepted; no cultivated varieties (cultivars) will be accepted. All materials and construction techniques shall be inspected and approved by the Engineer prior to installation.
- C. The source of all live cuttings shall be from purchased stock or located on-site, or within 25 miles of the project site. The Contractor shall locate, flag, and code the live cutting sites. The Contractor shall notify the Engineer 72 hours prior to harvesting to review and approve all harvesting sites. Upon approval by the Engineer, the Contractor shall be responsible for harvesting and transporting the cuttings to the job site.
- D. If the Contractor elects to purchase live branch material, the supplier must be approved by the Owner and Engineer. Purchased material shall meet all of the specifications found in this section.

2.02 SUBSTITUTIONS

- A. Any proposed species substitutions or changes in percent composition of species shall require prior written approval by the Engineer. Only specified plant species will be accepted. No cultivated varieties (cultivars) are acceptable.

PART 3 EXECUTION

3.01 INSTALLATION

- A. The harvest and installation of Live Stakes shall be performed only during the dormant season between November 1 and March 31. When special conditions warrant a variance to the planting operations, proposed planting times shall be submitted for approval by the Engineer.
- B. The Contractor shall notify the Engineer 72 hours prior to harvesting to review and approve all harvesting sites. The Contractor shall locate, flag, and code the live cutting sites. Upon approval by the Engineer, the Contractor shall be responsible for harvesting and transporting the cuttings to the job site.
- C. Shrubs and young trees used in preparation of live stakes shall be cut directly above the ground. All cuts shall be smooth and the cut surface kept small. The use of large pruning shears or power saws may be required. Trees that are more than 3 inches in diameter shall be topped. The live materials shall be transported to the construction site within 24 hours of harvesting and then cut to size, as specified in the details of the Construction Drawings.
- D. Live materials must be protected against drying out and overheating before/during transport (e.g., they shall be covered, transported in unheated vehicles, moistened, kept in soak pits) and on-site prior to installation (e.g., by

storing in controlled conditions, storing in shade, covering with evergreen branches or plastic, placing in moist soil, or spraying with anti-transparent chemicals). Live materials shall receive continuous shade, shall be sheltered from the wind, and shall be continuously protected from drying by being heeled into moist soils. Where water is available, live cuttings shall be sprayed or immersed. Warm water stimulates growth and should be used only upon the approval of the Engineer. Any costs associated with such storage are incidental to the overall unit costs. Live materials should be installed the same day that the cuttings are harvested. If installation of live materials cannot be accomplished on the same day and storage is required, live materials shall be stored for a period no longer than two (2) days. Any storage of live materials must be approved by the Engineer prior to storing.

- E. Gently drive live stakes through the erosion control fabric and into the ground so that approximately 80% percent of the stake is below the ground surface. The Contractor shall use a rubber mallet for driving the stake directly into the ground or drive a pilot hole, smaller in diameter than the live stake, and then drive the live stake into the pilot hole. Stagger the live stakes in a random pattern throughout the specified planting area at a density of 1 live stake per square yard, or as directed by the Engineer. Live stakes shall be installed between the low flow water surface and bankfull elevation.
- F. Live stakes split during installation may be left in place, but must be supplemented with a new live stake that remains un-split after installation.

END OF SECTION

SECTION 02-00-14
NATURAL STONE OUTFALL STABILIZATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This work shall consist of furnishing rock to be used in existing outfall scour protection as specified on the Construction Drawings or as directed by the Engineer.

1.2 REFERENCES

- A. All portions of the following MDOT Standard Specifications for Construction apply to this section, with the following provisions.
- B. Geotextile for Base, Section 308
- C. Geosynthetics, Section 910
- D. Erosion and Sediment Control Materials, Section 916.

PART 2 - PRODUCTS

- 2.1. Rock used shall be rounded glacial material meeting the specifications of MDOT Section 916.01.A.
- 2.2. Geotextile fabric for this item shall be woven geotextile fabric and shall be certified by the manufacturer or supplier. The Contractor shall submit manufacturer specifications to the Engineer prior to ordering materials.

PART 3 - EXECUTION

- 3.1 Over-excavate below the existing outfall to allow for full rock thickness indicated in the Construction Drawings and Details.
- 3.2 Place rock in layers no greater than the D_{100} of the specified gradation. Fill voids in riprap armor with native channel materials before placing the next layer of riprap.
- 3.3 Repeat Step 3.3 until specified rock thickness is met.

END OF SECTION



DRAWINGS/PLANS

Milham Park Dam Removal

Bid Reference #: 95939-001.0

September 2020

