

# **CITY OF BELLEVILLE**

## **Horizon Park Slope Stabilization**

Advertisement, Instructions, General Conditions, Contract Specifications



### **Mayor**

Ken Voight

### **Interim City Manager**

Steve Jones

### **City Clerk**

Briana Papin – City  
Clerk/Treasurer

### **Council**

Kelly Bates, Mayor Pro-Tem

Jeremiah Beebe

Julie Kissel

Randy Priest

### **DPW Director**

Nathan Johnson

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24"x36" Plans

## INVITATION TO BID BELLEVILLE HORIZON PARK SLOPE STABILIZATION

The project consists of the installation of retaining materials for slope stabilization at Horizon Park. The anticipated start date is **Tuesday, September 01, 2026**, and final completion by **Monday, November 02, 2026**.

**SEALED BIDS will be accepted at the address below. Bid must be clearly labeled "HORIZON PARK SLOPE STABILIZATION"**

**Two (2) copies** of the bid proposals shall be submitted to:

City Clerk  
City of Belleville  
330 Charles Street  
Belleville, MI 48111

**Deadline: June 09, 2026, 10 am (est).**

**Bids shall be publicly opened and read.**

All RFI's shall be emailed to James Owczarzak, [jmowczarzak@hengineers.com](mailto:jmowczarzak@hengineers.com) (No calls)  
The deadline for Request for Information (RFI) is **Tuesday, June 02, 2026, 10 am (est)**.

**On-Site Pre-Bid Meeting will be held on Thursday, May 28, 2026, at 10 am at Horizon Park.**

Contract Documents can be downloaded directly from BidNet.

The OWNER reserves the right to waive any information or to reject any and/or all bids. Bidders may not withdraw their bid within 60 days after the date of bid opened.

The OWNER and ENGINEER will further assess the bids based on the following criteria.

1. COST EFFECTIVENESS
2. SIMILAR PAST PROJECT EXPERIENCE
3. ABILITY TO COMPLETE PROJECT WITHIN TIMEFRAME

Submit **two (2) copies and a flash drive** of the following items in the bid submittal:

1. **5% Bid Bond**
2. **Completed Itemized Bid Sheet**
3. **Completed and Signed Exhibit 'A' Proposal**
4. **All signed addendums**
5. **Flash drive of all submitted documents**

**Belleville City Clerk's Office  
Briana Papin - City Clerk/Treasurer**

**Itemized Bid Sheet**  
**City of Belleville - Horizon Park Slope Stabilization**  
**HEI Project # 85321**

Line No.	Description	Est. Amount	Unit	Unit Price	Line Total
1	Video of the Existing Site Condition	1	LSUM		\$
2	Soil Erosion Including Mud Mat, Inlet Filter, Silt Fence & Turbidity Curtain	1	LSUM		\$
3	Construction Site Protection & Temp Fence	1	LSUM		\$
4	12" Rip-Rap (per plan detail)	1	LSUM		\$
5	Remove & Replace 36" RCP (Pictures in M&P)	8	LFT		\$
6	4" Ø Perforated Under Drain with GeoTextile and an outlet every 50'	850	LFT		\$
7	Rip-Rap / Armor Layer/Filter Layer (per plan detail)	1	LSUM		\$
8	Wall #1- including 6A Limestone & Geotextile (per plan detail)	323	LFT		\$
9	Wall #2- including 6A Limestone & Geotextile (per plan detail)	259	LFT		\$
10	Planting Soil & Restoration, seed and mulch blanket	1	LSUM		\$
11	Nautical Posts and Rope	1	LSUM		\$
12	Traffic Control	1	LSUM		\$
				Project Total	\$

# INSTRUCTIONS TO BIDDERS

## Defined Terms

Disputes with respect to the definitions of any terms shall be resolved by Hennessey Engineers, Inc., (“ENGINEER”). The term “Successful Bidder” shall mean the qualified Bidder but not necessarily the lowest Bidder to whom **The City of Belleville** (“OWNER”) (on the basis of OWNER’s evaluation) makes an award.

## Copies of Bidding Documents

1. All Bidding Documents for the project must be downloaded directly from BidNet.
2. Sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the advertisement or invitation may be obtained from ENGINEER (unless another issuing officer is designated in the advertisement or Invitation to Bid).
3. Complete sets of Bidding Documents shall be used in preparing bids. Every Bidder shall ascertain that every set the Bidder obtains from the OWNER or ENGINEER is complete. Neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of the Bidding Documents.
4. OWNER and ENGINEER, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining bids for the work and do not confer a license or grant for any other use of the Bidding Documents by the Bidder.

## Qualifications of Bidders

To demonstrate qualifications to perform the work, each Bidder must be prepared to submit within five (5) days of OWNER’s or ENGINEER’s request, written evidence of any information deemed necessary by the ENGINEER for bid evaluation, including, but not limited to, financial data, previous experience, evidence of authority to conduct business in the jurisdiction where the project is located or covenant to obtain such qualification prior to award of the contract. Failure to submit any such data within the five (5) day period shall give the OWNER and the ENGINEER the right to finally reject the CONTRACTOR’s bid.

## Examination of Contract Documents and Site

5. Before submitting a bid, each Bidder must (a) examine the Contract Documents thoroughly; (b) visit the site to familiarize itself with local conditions that may, in any way, affect cost, progress or performance of the work; (c) familiarize itself with federal, state and local laws, ordinances, rules and regulations that may, in any way, affect cost, progress or performance of the work; and (d) study and carefully correlate Bidder’s observations with the Contract Documents.
6. Request may be made for the identification of those reports of investigations and tests of subsurface and latent physical conditions on the site or otherwise affecting cost, progress or performance of the work, which have been relied upon by ENGINEER in preparing the Contract Documents. OWNER may make copies of such reports available to any Bidder requesting them. Before submitting its bid, each Bidder shall, at its own expense, prepare additional investigations and tests as the Bidder may deem necessary to prepare its bid for performance of the work. The

OWNER and ENGINEER make no guarantee as to the accuracy or the completeness of the reports. Nor are they included in the Contract Documents.

7. On request, OWNER will provide each Bidder access to the site to conduct investigations and tests as each Bidder deems necessary for submission of his bid.
8. It is the responsibility of the CONTRACTOR to make whatever arrangements it deems necessary to obtain access to the property that is not included within the project, including, but not limited to, land necessary to obtain access to the project, land for storage of material and equipment, etc.
9. The submission of a bid will constitute an incontrovertible representation by the Bidder that it has complied with every requirement of this Article 4 and all other provisions of the Contract Documents and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work.

### **Interpretations**

All questions relating to the meaning or intent of the Contract Documents shall be submitted to the ENGINEER in writing. Replies, if any, may be issued if ENGINEER decides it to be in the interest of the project, by addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. ENGINEER reserves the right not to answer questions received less than 10 days prior to the date for opening of bids. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

### **Contract Time**

The number of days within which, or the date by which, the work is to be completed (the Contract Time) is set forth in the Bid Form and shall be included in the Agreement.

### **Substitute Material and Equipment**

The Notice of Award shall be based on the materials and equipment described in the Contract Documents without consideration of possible substitute of "or equal" items.

### **Subcontractors**

If the ENGINEER requires the identity of certain SUBCONTRACTORS and other persons and organizations to be submitted to OWNER in advance of the Notice of Award, the Successful Bidder, and any other Bidder so requested shall, within five (5) days after the day of the bid opening, submit to OWNER a list of all SUBCONTRACTORS and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the work as to which such identification is so required.

Such a list shall be accompanied by an Experience Statement with pertinent information as to similar projects and other evidence of qualifications for each such SUBCONTRACTOR, persons and organization. If OWNER or ENGINEER has any objection to any proposed SUBCONTRACTOR, other person or organization, either may, before giving the Notice of Award, request the Successful Bidder to submit an acceptable substitute without an increase in bid price. If the apparent Successful Bidder declines to make any such substitution, the Contract shall not be awarded to the Successful Bidder. The Successful Bidder's unwillingness to make such substitution will not constitute grounds for sacrificing its bid security. After giving the Notice of Award, if the OWNER or ENGINEER, after due investigation, has reasonable objection to any SUBCONTRACTOR, other person or organization, either

may request the Successful Bidder to provide an acceptable substitute without an increase in the contract price. In such a case, neither the OWNER nor the ENGINEER shall be liable for any damages or remedies of either the CONTRACTOR or the SUBCONTRACTOR and other person or organization, of this provision of the Contract prior to the parties being contractually bound.

### **Bid Form**

10. The Bid Form attached hereto; additional copies may be obtained from ENGINEER after payment of the required charge.
11. Bid Forms must be completed in ink or by typewriter but not pencil. The bid price of each item on the form must be stated in words and numerals. In the event of an inconsistency, the words will take precedence. However, if, in the opinion of the ENGINEER, the inconsistency is substantial, then the ENGINEER shall have the authority to consider the CONTRACTOR's bid non-uniform, and void and award the contract to another Bidder without the ENGINEER or OWNER incurring any liability to the rejected Bidder.
12. Bids by corporation must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate office must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
13. Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature. The address of the partnership must be included below the signature of the partner.
14. All names must be type or printed below the signature.
15. The bid shall contain an acknowledgment of receipt of all addenda prepared by the ENGINEER (the numbers of which shall be filled in on the Bid Form).
16. The address to which communications regarding the bid are to be directed must be included.

### **Submission of Bids**

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be included in an opaque sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.

### **Modification and Withdrawal of Bids**

17. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a bid must be executed) and delivered to the place where bids are to be submitted at any time prior to the opening of bids.
18. If, within 24 hours after bids are opened, any Bidder files a duly-signed written notice with OWNER, and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of his bid, that Bidder may withdraw his bid and the bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the work.

### **Opening of Bids**

Bids will be opened publicly; they will be read aloud and an abstract of the amounts of the base bids and major alternates, if any, will be made available after the opening of bids.

### **Bids to Remain Open**

All bids shall remain open for 60 days after the date of the bid opening. However, the OWNER may, in its sole discretion, release any bid and return the bid security prior to that date.

### **Award of Contract**

19. OWNER shall have the right to reject any bid, to waive any and all informalities, to negotiate contract terms with the Successful Bidder, and to disregard all non-conforming, non-responsive or conditional bids. Discrepancies between the indicated sum of any column of figures and the correct sum thereof shall be resolved in favor of the correct sum. However, if, in the opinion of the ENGINEER, the conflict is substantial, then the OWNER shall have the right to consider the CONTRACTOR's bid non-uniform, void the bid and award the Contract to another Bidder. The ENGINEER or OWNER shall incur no liability to the rejected Bidder.
20. In evaluating bids, the OWNER and ENGINEER shall consider the qualifications of the Bidders, whether or not the bids comply with the prescribed requirements, alternates and unit prices, if requested in the Bid Forms, and any other consideration the OWNER or ENGINEER deems pertinent. OWNER may accept alternates in any order or combination.
21. The OWNER and ENGINEER may consider the qualifications and experience of SUBCONTRACTORS and other persons and organizations (including those who are to furnish the principal items or material or equipment) proposed for those portions of the work as to which the identity of SUBCONTRACTORS and other persons or organizations must be submitted. Operating costs, maintenance considerations, performance data and guarantee of materials and equipment also may be considered by OWNER and ENGINEER.
22. The OWNER and ENGINEER may conduct such investigations as they deem necessary to assist in the evaluations of any bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed SUBCONTRACTORS and other persons and organizations to do the work in accordance with the Contract Documents.
23. The OWNER shall have the right to reject the bid of any Bidder who does not pass any such evaluation to OWNER's and ENGINEER's satisfaction.
24. If the contract is to be awarded, it will be awarded to the Bidder whose evaluation by OWNER confirms to OWNER that the award will be in the best interests of the project.
25. If the contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within 60 days after the date of the bid opening.

### **Signing of the Agreement**

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by at least five (5) unsigned counterparts of the Agreement and all other Contract Documents. Within 10 days thereafter, CONTRACTOR shall sign and deliver all signed counterparts of the Agreement to the OWNER with all other Contract Documents attached. Within 15 days thereafter, OWNER will deliver all fully signed counterparts to CONTRACTOR. ENGINEER will identify those portions of the Contract Documents not fully signed by OWNER and CONTRACTOR and such identification shall be binding on all parties.

**These instructions to bidders are incorporated in the contract and made a part thereof.**

## **SPECIAL INSTRUCTIONS TO BIDDERS**

It is the intent of the OWNER that the CONTRACTOR shall complete all work as provided in the contract documents. However, the OWNER reserves the right to delete locations shown in the contract documents and to add additional locations within the **City**.

### **Bid Prices**

Bid prices shall remain firm for 60 days and shall include all costs associated with materials, equipment, tools, labor, signing, incidentals and transportation necessary to fully complete the project in compliance with the Specifications.

### **ENGINEER**

1. The Engineer, Hennessey Engineers, Inc., shall have general supervisory authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the contract. The Engineer also shall have authority to reject any work or materials, which do not conform to the contract, to resolve any questions regarding the Contract Documents, and to provide any interpretation of the Contract Documents.
2. The CONTRACTOR shall immediately report to the Engineer any questionable or obvious error or omission in the Contract Documents and shall not proceed with the work until the Engineer has addressed the error or omission.
3. Questions regarding the plans and specifications for this project may be directed to Alan Cruz at (734) 759-1600. The Engineer shall have to the right to inspect any materials to be used by the CONTRACTOR in performing its work with respect to this contract.
4. The OWNER and Engineer do not assume any liability for the availability of materials, equipment or components required under this contract.
5. Materials, equipment, components or completed work not in compliance with the Contract Documents may be rejected by the Engineer or designated representative, and shall be replaced by the CONTRACTOR at no cost to the OWNER or Engineer.

### **Responsibility of CONTRACTOR**

6. The CONTRACTOR shall be responsible for its work. The CONTRACTOR assumes all risk of damage to its work under the contract and agrees to defend and indemnify the OWNER and Engineer against any and all claims arising out of, or related to, its work under the contract.
7. 2. The CONTRACTOR shall be held responsible for the satisfactory and complete execution of its work under the contract. The CONTRACTOR shall provide, without extra charge, all incidental items required as a part of its work under the contract, even if not particularly specified or indicated.
8. All work performed by the CONTRACTOR shall comply with any and all industry standards and federal, state and local codes, statutes and ordinances which shall be considered as included as part of the Contract Documents.
9. Any reference in these documents to Standard Specifications shall mean the latest revision of those Specifications and shall become a part of the Contract Documents. Any part of the work

not completely detailed in these documents, or referenced in a Standard Specification, shall be governed by the latest edition of the proper industry document.

10. The CONTRACTOR shall supervise its work under the contract and shall have a competent person on site at all times when work is performed.
11. The CONTRACTOR shall daily remove all rubbish and accumulated materials resulting from its work under this contract.
12. The CONTRACTOR shall comply with all applicable OSHA and MIOSHA regulations.

#### **Site Inspection**

The CONTRACTOR is required to investigate and become familiar with all conditions relating to the work to be performed by it under this contract; shall verify all measurements and materials required under this contract; and shall be responsible for correctness of same. The CONTRACTOR shall not be entitled to any extra charges or compensation for any errors, omissions or miscalculations on the part of the CONTRACTOR, or because of the failure on the part of the CONTRACTOR to investigate or inspect the site.

#### **Site Security**

The CONTRACTOR shall be solely responsible for job site security of his materials and tools. The OWNER and ENGINEER shall not be liable to the CONTRACTOR for any loss or damage to the CONTRACTOR's materials and tools.

#### **Site Access**

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

#### **Protection of Work, Property and Public**

13. The CONTRACTOR shall maintain adequate protection of its work from damage and shall protect all public and private abutting property from injury or loss arising in connection with this contract. The CONTRACTOR shall provide and maintain all barricades, lights, fences, watch persons or other facilities necessary to protect all persons from danger or hazardous conditions resulting from its work under this contract.
14. The CONTRACTOR shall confine its equipment and operations to those areas of the work site necessary for the completion of its work, or as authorized by the ENGINEER. 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.
15. The CONTRACTOR shall supply and maintain all necessary lights, signs and barricades for the protection of the work and of the public. Traffic control devices used by the CONTRACTOR shall conform to the Michigan Manual of Uniform Traffic Control Devices (abstracted in a MDOT publication, "Construction Signing").
16. All protection and control devices within the "area of construction" shall be considered as incidental to the performance of the work by the CONTRACTOR and, therefore, the CONTRACTOR shall not be entitled to any extra payment of compensation for providing same. For purposes of this contract, the "area of construction" is defined as any city block in which the work of the CONTRACTOR may affect the safe travel of the public.

**Construction Schedule and Coordination**

17. Time is of the essence with respect to the work to be performed by the Contractor. Failure on the part of the CONTRACTOR to complete the work within the stated time it has set forth in the contract and agreed to herein, the CONTRACTOR shall be liable to the OWNER for any damages incurred by the OWNER as a result of such delay.
18. The CONTRACTOR shall coordinate with all other CONTRACTORS who may be working on the site in order to allow for the orderly progress of work being done on the site.
19. The CONTRACTOR shall supply the ENGINEER with an agreed upon Construction Schedule before commencing any work under this contract. The Construction Schedule shall detail beginning and completion dates for each major component of the project.
20. Construction delays resulting from tardiness on the part of the CONTRACTOR will be reviewed by the ENGINEER in the event of any request for extension by the CONTRACTOR.
21. 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.
22. Note that this is a project requiring planning, scheduling and cooperation on the part of all parties concerned.

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_

\_\_\_\_\_ as Principal, and

\_\_\_\_\_ as Surety, are

hereby held and firmly bound unto **CITY OF BELLEVILLE, 330 CHARLES, WAYNE, MI 48111**

as owner in the penal sum of \_\_\_\_\_

for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

The Condition of the above obligation is such that whereas the Principal has submitted to

\_\_\_\_\_ a certain Bid, attached hereto and hereby made a part thereof to enter into a contract in writing for the:

**HORIZON PARK SLOPE STABILIZATION**

NOW, THEREFORE,

1. If said Bid shall be rejected, or in the alternate,
2. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish bonds for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall, in all other respects, perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or directed by any extension of the time within which the OWNER may accept such Bid; and said Surety does hereby waive notice of any such extension.

IT WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their property officers, the day and year first set forth above.

---

(L.S.)

Principal

---

Surety

By: \_\_\_\_\_

**IMPORTANT:** Surety companies executing bonds must appear of the Treasury Department's most current list (Circular 570, as amended) and be authorized to transact business in the state where the project is located.

**EXHIBIT A: PROPOSAL  
HORIZON PARK SLOPE STABILIZATION**

**TO: City of Belleville  
330 Charles  
Belleville, MI 48111**

The undersigned has examined the plans, specifications and locations of the above-described work and is fully informed as to the nature of the work and conditions relating to its performance and understands the quantities shown on the attached Itemized Bid Sheet(s) are approximate only and are subject to either increases or decreases unless specifically mentioned otherwise in this Contract; the undersigned fully understands all the Contract Documents including, but not limited to, Article 5 (Bonds and Insurance) of the General Conditions.

The undersigned hereby proposes to furnish all necessary machinery, tools, equipment, and other means of construction to do all the work, furnish all materials, except as herein specified, and to complete the work in strict conformity with the requirements of the Proposal and Specifications, all at unit prices set forth in the Itemized Bid Sheet(s).

The undersigned further agrees, if awarded the contract, to deliver executed contract and bonds and furnish evidence of insurance within 10 days after the date of award.

The undersigned encloses a certified or cashier's check or bid bond in the amount of five percent (5%) of the bid payable to the City and included with the bid submittal.

Signed: \_\_\_\_\_ Address : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Firm Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone: \_\_\_\_\_

All erasures or alterations must be initialed by the bidder.

# AGREEMENT

**THIS AGREEMENT** is dated as of the \_\_\_\_\_ day of \_\_\_\_\_  
in the year 20\_\_\_\_, by and between the **CITY OF BELLEVILLE 330 CHARLES, BELLEVILLE,  
MI 48111** hereinafter called OWNER, and \_\_\_\_\_

\_\_\_\_\_ herein after called CONTRACTOR, whereas OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

## Article 1. **WORK**

CONTRACTOR shall complete all work as specified or indicated in the Contract Documents. The work is generally described as follows:

### **HORIZON PARK SLOPE STABILIZATION**

## Article 2. **ENGINEER**

The proposal has been completed by Hennessey Engineers, Inc., 13500 Reeck Road, Southgate, Michigan 48195, which is hereinafter called ENGINEER, which will have the right and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

## Article 3. **CONTRACT TIME**

3.1 The Work shall be substantially completed as provided in Article 2 of the General Conditions, and completed and ready for final payment in accordance with Article 12 of the General Conditions.

The work for this project shall be substantially completed on the date specified in the Invitation to Bid document.

The itemized bid sheets have an item for Construction Observation. The contractor is to enter the number of days they will need to complete the project. Any days that exceed the number of days the contractor bids will be at the cost of the contractor and will be deducted from the contract.

3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the work is not substantially completed within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in presiding in a legal or arbitration proceeding and the actual loss suffered by OWNER if the work is not substantially completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER, City of BELLEVILLE, \$500 for each day that expires after the time specified in paragraph 3.1 for completion until the work is completed.

#### **Article 4. CONTRACT PRICE**

OWNER shall pay CONTRACTOR for performance of the work in accordance with the Contract Documents in current funds as shown in Exhibit A: Proposal.

#### **Article 5. PAYMENT PROCEDURES**

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions. CONTRACTOR is to use AIA Document G-702 for all Applications of Payment.

- 5.1 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER about 35 days after submittal of pay request by CONTRACTOR. Progress payments will be on the basis of the progress of the work, the amount of which will be decided by the ENGINEER. Progress payments will be made in accordance with State Act 524.
- 5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with Article 14 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Article.

#### **Article 6. CONTRACTOR'S REPRESENTATIONS**

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 6.1 Whenever anywhere in these Contract Documents insurance is required, the name of the OWNER.
- 6.2 CONTRACTOR has fully and completely familiarized himself with the nature and extent of the Contract Documents, work, locality and with all local conditions and federal, state and local laws, ordinances, rules and regulations that, in any manner, may affect cost, progress or performance of the work.
- 6.3 CONTRACTOR has studied carefully all reports of investigation and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the work which were relied upon by ENGINEER in the preparation of the drawings and specifications and which have been identified in the Supplementary Conditions.
- 6.4 CONTRACTOR has fully and completely made or caused to be made at CONTRACTOR'S expense, examinations, investigations, tests and studies of data, in addition to those referred to in paragraph 6.3 of the Agreement, including, but not limited to, subsurface conditions, soil and underground strength conditions, whether latent or not, and any underground utility structures or obstacles and any other data that may possibly be deemed pertinent to the performance of the work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, and any additional examinations, investigations, tests, reports or similar data as will be required by CONTRACTOR's agent at CONTRACTOR's expense. Such work should be considered incidental to the Contract Price.
- 6.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 6.6 CONTRACTOR has given the ENGINEER written notice of all conflicts, errors, discrepancies that he has discovered in the Contract Documents and the written resolution thereof by the ENGINEER is acceptable to the CONTRACTOR.

- 6.7 The CONTRACTOR accepts all risk directly or indirectly connected with the performance of the Contract.
- 6.8 The CONTRACTOR warrants that he has not been influenced by an oral statement or promise of the OWNER or the ENGINEER, but only by the Contract Documents.

**Article 7. CONTRACT DOCUMENTS**

- 7.1 This Agreement
- 7.2 Exhibit A: Proposal and Itemized Bid Sheet(s)
- 7.3 All bonds identified as Exhibit B: Performance Bond, Exhibit C: Payment Bond and Exhibit D: Maintenance and Guarantee Bond
- 7.4 Notice of Award
- 7.5 General Conditions
- 7.6 Instructions to Bidders
- 7.7 Specifications and Special Provisions bearing the title:

**HORIZON PARK SLOPE STABILIZATION**

- 7.8 Included Addendums
- 7.9 CONTRACTOR's Bid
- 7.10 Documentation submitted by CONTRACTOR prior to Notice of Award
- 7.11 Any modification, including Change Orders, duly delivered after execution of Agreement:  
There are no Contract Documents other than those listed above in Article 7 of this Agreement. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Section 1 of the General Conditions)

**Article 8. MISCELLANEOUS**

- 8.1 Terms used in this Agreement, which are defined in Article 1 of the General Conditions, shall have the meanings indicated in the General Conditions.
- 8.2 No assignment by the CONTRACTOR hereto of any rights under or interest in the Contract Documents will be binding on the OWNER hereto without the written consent of the party sought to be bound; and, specifically, any not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and, unless specifically stated to the contrary in any written consent to an agreement, no assignment will release or discharge the CONTRACTOR from any duty or responsibility under the Contract Documents.
- 8.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

**Article 9. RESOLVING CONFLICTS**

In resolving conflicts, errors and discrepancies, the documents shall be given precedence in the following order: Agreement, Modification, Addenda, Supplementary Conditions, Instructions to Bidders, General Conditions, Special Provisions, Supplemental Specifications, Project Technical Specifications and Standard Notes. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings.



**EXHIBIT B: PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of CONTRACTOR)

\_\_\_\_\_  
(CONTRACTOR Address)

CONTRACTOR Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Hereinafter called Principal, and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Surety Address)

Surety Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Hereinafter called Surety, are held and firmly bound unto:

**CITY OF BELLEVILLE**  
(Name of OWNER)

**CITY OF BELLEVILLE, 330 CHARLES, BELLEVILLE, MI 48111**  
(OWNER Address)

OWNER Telephone: \_\_\_\_\_

hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars,

( \$ \_\_\_\_\_ ) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal entered into a certain Contract with the OWNER, dated the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

**HORIZON PARK SLOPE STABILIZATION**

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said Contract, including any change of work which may be required by OWNER, with or without notice to the Surety, during the original term thereof, any extensions thereof which may be granted by the OWNER, with or without notice to the Surety, including any change of work which may be required by OWNER, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall

reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alternation, or addition to the terms of the Contract or to work to be performed, thereunder, or the Specifications accompanying the same shall, in any way, affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each one of which shall be deemed an original, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
Principal (Principal) Secretary

\_\_\_\_\_  
(SEAL)

By:

Address: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Witness to Principal (Surety)

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
By: Attorney-In-Fact (Surety) Secretary

(SEAL)

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

NOTE: Date of Bond must not be prior to date of Contract. If CONTRACTOR in Partnership, all Partners should execute Bond.

**EXHIBIT C: PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of CONTRACTOR)

\_\_\_\_\_  
(CONTRACTOR Address)

CONTRACTOR Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Hereinafter called Principal, and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

Surety Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Hereinafter called Surety, are held and firmly bound unto:

**CITY OF BELLEVILLE**  
(Name of OWNER)

**CITY OF BELLEVILLE, 330 CHARLES, BELLEVILLE, MI 48111**  
(OWNER Address)

OWNER Telephone \_\_\_\_\_

Hereinafter called OWNER, in the penal sum of \_\_\_\_\_

Dollars, (\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents:

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal entered into a certain Contract with the OWNER, dated the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

**HORIZON PARK SLOPE STABILIZATION**

NOW THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and

for all labor, performed in such work whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to work to be performed thereunder, or the Specifications accompanying the same shall, in any way, affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IT WITNESS WHEREOF, this instrument is executed five (5) counterparts, each one of which shall be deemed an original, this the \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

ATTEST:

\_\_\_\_\_  
Principal (Principal) Secretary

\_\_\_\_\_  
(SEAL)

By:

Address: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Witness to Principal (Surety)

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
By: Attorney-In-Fact (Surety) Secretary

(SEAL)

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

NOTE: Date of Bond must not be prior to date of Contract. If CONTRACTOR is Partnership, all Partners should execute Bond.

**EXHIBIT D:  
MAINTENANCE AND GUARANTEE BOND**

KNOW ALL MEN THESE PRESENTS: that

\_\_\_\_\_, CONTRACTOR, as Principal, and

\_\_\_\_\_, as Surety, are held and firmly

bound into the **CITY OF BELLEVILLE, 330 CHARLES, BELLEVILLE, MI 48111**

HEREINAFTER CALLED THE OWNER, in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) good and lawful money of the United States of America, to be paid to said OWNER, its legal representatives and assigns, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, and each and every one of them jointly and severally firmly by these presents.

WHEREAS, the above named Principal has entered into a certain written Contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for construction of work entitled:

**HORIZON PARK SLOPE STABILIZATION**

(Hereinafter called the Contract). Which Contract and Specifications for said work shall be deemed a part herein as fully as if set out herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that by and under said CONTRACTOR, the above named Principal has agreed with OWNER that, for a period of two years from the date of payment of Final Estimate, to keep in good order and repair any defect in all the work done under said Contract either by the Principal or his SUBCONTRACTOR, or his material suppliers, that may develop during said period due to improper materials, defective equipment, workmanship or arrangements, and any other work affected in making good such imperfections, shall also be made good, all without expense to the OWNER and that whenever directed so to do by the OWNER by notice served in writing, either personally or by mail on the Principal at:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OR

legal representatives, or successors, or on the Surety at:

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WILL PROCEED at once to make such repairs as directed by said OWNER and, in case of failure to do so within one (1) week from the date of service of such notice, or within reasonable time not less than one (1) week, as shall be fixed in said notice, then the OWNER shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose, and to undertake, do and make such repairs, and charge the expense thereof to, and receive same from said Principal or Surety. If any repair is necessary to be made at once to protect life and property, then and in that case, the OWNER may take immediate steps to repair or barricade such defects without notice to the CONTRACTOR. In above accounting, the OWNER shall not be held to obtain the lowest figures for doing of the work, or any part thereof, but all sums actually paid therefore shall be charged to the Principal or Surety. In this connection, the judgment of the OWNER is final and conclusive. If the said Principal for a period of two (2) years from the date of payment of Final Estimate shall keep said work so constructed under said Contract in good order and repair and shall, whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse said OWNER for any expense incurred by making such repairs, should the Principal or Surety fail to do as hereinbefore specified, and shall fully indemnify, defend and save harmless the OWNER from all suits and actions for damages of every name and description brought or claimed against it for, or on account of, any injury or damage to person or property received or sustained by any party or parties by, or from, any of the acts or omissions or through the negligence of said Principal, servants, agents or employees, in the prosecution of the work included in said Contract, then the above obligation shall be void, otherwise to remain in full force and effect. The OWNER's opinion as to whether the work performed is in good order and repair should be final.

IT WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed, Sealed and Delivered  
In the Presence of:

\_\_\_\_\_  
Principal (Seal)

\_\_\_\_\_  
Surety (Seal)

**CONTRACTOR'S AFFIDAVIT**  
**Current Estimate**

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_,

The undersigned, \_\_\_\_\_,

Hereinafter called the CONTRACTOR, hereby represents that on \_\_\_\_\_,

\_\_\_\_\_ he/it was awarded a Contract by

**CITY OF BELLEVILLE, 330 CHARLES, BELLEVILLE, MI 48111**

hereinafter called the OWNER, to \_\_\_\_\_

in accordance with the terms of this Contract; and the undersigned further represent that all progress payments heretofore received from the OWNER on account of the work have been applied by the CONTRACTOR to discharge in full all of the CONTRACTOR's obligations incurred in connection with the work by all prior estimates.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
CONTRACTOR

By: \_\_\_\_\_

\_\_\_\_\_  
Title

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, in the year 20\_\_.

\_\_\_\_\_  
Notary Public  
My Commission expires on: \_\_\_\_\_

**CONTRACTOR'S AFFIDAVIT**  
**Final Estimate**

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_,

The undersigned, \_\_\_\_\_,

Hereinafter called the CONTRACTOR, hereby represents that on \_\_\_\_\_,

\_\_\_\_\_ he/it was awarded a Contract by

**CITY OF BELLEVILLE, 330 CHARLES, BELLEVILLE, MI 48111**

hereinafter called the OWNER, to \_\_\_\_\_

in accordance with the terms of this Contract; and the undersigned further represent that subject work has now been accomplished, and the said Contract has now been completed.

The undersigned hereby warrants and certifies that all of his (its) indebtedness arising by reason of the said Contract has been fully paid or satisfactorily secured; and that all claims from SUBCONTRACTORS and others for labor and material used in accomplishing said project, as well as all other claims arising from the performance of said Contract, have been fully paid or satisfactorily settled. The undersigned further agrees that, if any such claim should hereinafter arise, he (it) shall assume responsibility for the same immediately upon request to do so by the OWNER.

The undersigned, for a valuable consideration, the receipt of which is hereby acknowledged, does further hereby waive, release and relinquish any and all claims or right of lien which the undersigned has or may hereafter acquire upon the subject premises for labor and material used in accomplishing said project owned by the OWNER.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
CONTRACTOR

By: \_\_\_\_\_

\_\_\_\_\_  
Title

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, in the year, 20\_\_.

\_\_\_\_\_  
Notary Public  
My Commission expires on: \_\_\_\_\_

**CONTRACTOR'S AFFIDAVIT**  
**Construction Materials**

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_,

The undersigned, \_\_\_\_\_,

Hereinafter called the CONTRACTOR, hereby represents that on \_\_\_\_\_,

\_\_\_\_\_ he/it was awarded a Contract by

**CITY OF BELLEVILLE, 330 CHARLES, BELLEVILLE, MI 48111**

hereinafter called the OWNER, to \_\_\_\_\_

in accordance with the terms and conditions of this Contract; and the undersigned further represent that all materials used and installed on the project were received by a certified manufacturer's supplier and was installed per all applicable manufacturer's recommendations.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this \_\_\_\_ day of

\_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
CONTRACTOR

By: \_\_\_\_\_

\_\_\_\_\_  
Title

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, in the year, 20\_\_.

\_\_\_\_\_  
Notary Public

My Commission expires on: \_\_\_\_\_

**CONTRACTOR'S AFFIDAVIT**  
**Site Visit and Understanding**

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_,

The undersigned, \_\_\_\_\_,

Hereinafter called the CONTRACTOR, hereby represents that on \_\_\_\_\_,

in accordance with the terms and conditions of this Contract; and the undersigned further acknowledges that he has visited the site and has an understanding of the proposed project and proposed site.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
CONTRACTOR

By: \_\_\_\_\_

\_\_\_\_\_  
Title

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, in the year, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
My Commission expires on: \_\_\_\_\_

# GENERAL CONDITIONS

## ARTICLE 1: DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated, which are applicable to both the singular and plural thereof.

**Addenda**: Written or graphic instruments issued prior to the opening of Bids that clarify, correct or change the bidding documents or the Contract Documents.

**Agreement**: The written agreement between OWNER and CONTRACTOR covering the work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

**Application for Payment**: The form that is to be used by CONTRACTOR in requesting progress or final payment and which is to include such supporting documentation as is required by the Contract Documents.

**Bid**: The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.

**Bonds**: Bid, performance and payment bonds and other instruments of security submitted on forms as required by Contract Documents.

**Change Order**: A written order to CONTRACTOR, signed by OWNER, authorizing an addition, deletion or revision in the work, or an adjustment in the Contract Price or the Contract Time issued after the effective date of the Agreement.

**Contract Documents**: The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications, the Drawings as the same are more specifically identified in the Agreement, together with all modifications issued after the execution of the Agreement and the Instructions to Bidders.

**Contract Price**: The monies payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement.

**Day**: A calendar day of 24 hours measured to the next midnight.

**Defective**: An adjective which, when modifying the word "work," refers to work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEERS's recommendation of final payment.

**Drawings**: The drawings which show the character and scope of the work to be performed and are referred to in the Contract Documents.

**Effective Date of Agreement:** The date indicated in the Agreement on which it becomes effective; but, if no date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

**ENGINEER:** The person, firm or corporation named as such in the Agreement.

**Modification:** (a) A written amendment of the Contract documents signed by both parties, (b) a Change Order. A modification may only be issued after the effective date on the Agreement.

**Notice of Award:** The written notice by OWNER to the apparent Successful Bidder stating that, upon compliance by the apparent Successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

**OWNER:** The public body of authority, corporation, association, partnership or individual with whom CONTRACTOR has entered into the Agreement and from whom the work is to be provided.

**Project:** The total construction of which the work is to be provided under the Contract Documents may be the whole or a part, as indicated elsewhere in the Contract Documents.

**Shop Drawings:** All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by CONTRACTOR, a SUBCONTRACTOR, manufacturer, fabricator, supplier or distributor to illustrate some portion of the work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the work.

**Specifications:** Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the work and certain administrative details applicable thereto.

**SUBCONTRACTOR:** An individual, firm or corporation having a direct contract with CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the work at the site.

**Substantial Completion:** The work (or a specified part thereof) has progressed to the point where it is sufficiently complete, in accordance with the Contract Documents, so that the work (or specified part) can be utilized for the purpose for which it was intended; or, if there is no such point established, when final payment is due in accordance with Article 14. The terms “substantially complete” and “substantially completed,” as applied to any work, refer to substantial completion thereof.

**Work:** The entire completed construction, or the various separately identifiable parts thereof, are required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction — all as required by the Contract Documents.

# **GENERAL CONDITIONS**

## **ARTICLE 2: PRELIMINARY MATTERS**

### **Delivery of Bonds**

When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR may be required to furnish in accordance with Article 5.

### **Copies of Documents**

OWNER shall furnish to CONTRACTOR up to five (5) copies (unless otherwise specified in the General Requirements) of the Contract Documents as are reasonably necessary for the execution of the work. Additional copies will be furnished, upon request, at the cost of reproduction.

### **Commencement of Contract Time: Notice to Proceed**

The contract time will be presumed to commence to run on the first day after the effective date of the Agreement, without a need for notice to proceed. Only if that is not possible, for reasons within the contract of the OWNER, then a notice to proceed shall be given by the OWNER stating the date when the contract time will commence.

### **Starting the Project**

CONTRACTOR shall start to perform the work on the date when the contract time commences to run, but no work shall be done at the site prior to the date on which the contract time commences to run.

### **Before Starting Construction**

1. CONTRACTOR shall start to perform the work. CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report, in writing to ENGINEER, any conflict, error or discrepancy which CONTRACTOR may discover; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the drawings and specifications, unless CONTRACTOR had actual knowledge thereof or should reasonably have know thereof.
2. Before work at the site is started, CONTRACTOR shall deliver to OWNER certificates (and other evidence of insurance requested by OWNER), which CONTRACTOR is required to purchase and maintain in accordance with Article 5.
3. Within 20 days after the effective date of the Agreement, but before CONTRACTOR starts the work at the site, a conference will be held for review and acceptance of the schedules to establish procedures for handling shop drawings and other submittals and for processing applications and payment and to establish a working understanding among the parties as to the work.

**GENERAL CONDITIONS**  
**ARTICLE 3: CONTRACT DOCUMENTS:**  
**INTENT AND REUSE**

**Intent**

1. The Contract Documents comprise the entire Agreement between OWNER and CONTRACTOR concerning the work. They may be altered only by a modification.
2. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. If during the performance of the work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, he shall report it to ENGINEER in writing at once and before proceeding with the work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the specifications or drawings unless CONTRACTOR has actual knowledge thereof or should reasonably have known thereof.
3. It is the intent of the specifications and drawings to describe a complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any work that may reasonably be inferred from the specifications or drawings as being required to produce the intended result shall be applied whether or not it is specifically called for. When words that have a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual or code in effect at the time of opening of bids (or on the effective date of the Agreement if there were no bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their agents or employees from those set forth in the Contract Documents.
4. The Contract Documents will be governed by the law of the place of the project.

**Reuse of Documents**

Neither CONTRACTOR nor any SUBCONTRACTOR, manufacturer, fabricator, supplier or distributor shall have or acquire any title to or ownership rights in any of the drawings, specifications or other documents (or copies of any thereof) prepared by or bearing the seal or logo of ENGINEER; and they shall not reuse any of them or part thereof on extensions of the project or any other project without the written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

**GENERAL CONDITIONS**  
**ARTICLE 4: AVAILABILITY OF LANDS,**  
**PHYSICAL CONDITIONS, REFERENCE POINTS**

**Availability of Lands**

CONTRACTOR shall arrange for all lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

**Physical Conditions — Investigations and Reports**

Reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the work which have been relied upon by ENGINEER in preparation of the drawings and specifications — are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

**Unforeseen Physical Conditions**

By signing the contract, the CONTRACTOR has represented that he has fully and completely made or caused to be made at CONTRACTOR's expense, examinations, investigations, tests and studies of data in addition to those referred to in Article 6 of the Agreement, including but not limited to, subsurface conditions, soil and underground strength conditions, whether latent or not, and any underground utility structure or obstacle and any other data that may possibly be deemed pertinent to the performance of the work at the contract price, within the Contract Time, and in accordance with the other terms and conditions of the Contract Documents; and any additional examinations, investigations, tests, reports or similar data as will be required by CONTRACTOR for such purposes will be performed by CONTRACTOR or CONTRACTOR's agent at CONTRACTOR's expense. Such work should be considered incidental to contract price.

**Reference Points**

OWNER shall provide engineering surveys for construction to establish reference points that, in his judgment, are necessary to enable CONTRACTOR to proceed with the work. CONTRACTOR shall be responsible for laying out the work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER such changes being deducted from CONTRACTOR's payment estimate.

## **GENERAL CONDITIONS**

### **ARTICLE 5: BONDS AND INSURANCE**

#### **Performance and Other Bonds**

1. CONTRACTOR shall furnish performance and payment bonds, each in an amount at least equal to the contract price, as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These bonds shall remain in effect at least until one year after the date of final payment. CONTRACTOR also shall furnish such bonds as are required in this article. All bonds shall be in the forms prescribed by the bidding documents in the state where the project is located. All bonds, signed by an agent, must be accompanied by a certified copy of the authority to act.
  - a. The insurance and bonds required herein may be increased after award of project if said increase is found reasonably necessary or required for the proper performance of the project. Said increase shall be at the CONTRACTOR's expense.
  - b. The CONTRACTOR is under a continued obligation to submit insurance and bonds as required herein. If, at any time prior to final acceptance, the OWNER discovers that any insurance or bonds required herein were either not submitted by CONTRACTOR or not submitted in full compliance with the Contract Documents, then the OWNER has the option to require the CONTRACTOR to submit insurance and bonds as required in the contract. In case of failure of CONTRACTOR to submit such bonds or insurance, the OWNER may elect any remedy that may reasonably protect the OWNER's interest. However, the originally submitted bonds and insurance would continue to have full effect and force.
  - c. All bonds shall be in the forms prescribed by the bidding documents or supplementary general conditions and be executed by such sureties as (i) are licensed to conduct business in the state where the project is located, and (ii) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds, signed by an agent, must be accompanied by a certified copy of the authority to act.
2. If the surety on any bond furnished by CONTRACTOR is declared bankrupt, becomes insolvent or its right to do business is terminated in any state where any part of the project is located or it ceases to meet the requirements of Article 5, CONTRACTOR shall, within five (5) days thereafter, substitute another bond and surety, both of which shall be acceptable to the OWNER.

#### **Contractor's Liability Insurance**

3. The insurance certificates required herein from a part of this contract and until such required certificates are delivered to OWNER and approved by the OWNER and ENGINEER, no valid Contract shall exist between the parties hereto. It is absolutely necessary that all certificates be approved by the corporation counsel before any work is started pursuant to this contract.
4. CONTRACTOR shall purchase and maintain such comprehensive general liability and other insurance that will provide protection from claims set forth below which may arise out of, or result

from, CONTRACTOR's performance of the work and CONTRACTOR's other obligations under the Contract Documents, whether such performance is by CONTRACTOR, by any SUBCONTRACTORS, by anyone directly or indirectly employed by any of them, or by anyone for whom acting on their behalf may be liable.

5. THE CONTRACTOR SHALL FURNISH FIVE (5) CERTIFIED COPIES OF ALL CERTIFICATES OF INSURANCE POLICIES REQUESTED HEREIN. The OWNER and ENGINEER shall be named insured on each and every insurance policy required herein. The CONTRACTOR must furnish certificates for the following insurance:

- A. Workmen's Compensation
 

Compensation	Statutory
Employer's Liability	
Each Accident	\$100,000
Disease – Policy Limit	\$500,000
Disease – Each Employee	\$100,000
  
- B. Comprehensive General Liability
 

General Aggregate	\$3,000,000
Products – Com/Ops Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
Fire Damage (any one person)	\$ 50,000
Medical Expense (any one person)	\$ 5,000

\*Certificates shall show that X, C and U coverage is included
  
- C. Comprehensive Automobile Liability – Coverage shall include Owned, Non-owned and Hired Autos
 

Bodily Injury – Per Person	\$ 500,000
Bodily Injury – Per Accident	\$2,000,000
Property Damage	\$1,000,000
or	
Combined Single Limit	\$2,000,000
  
- D. Owner's Protective Liability – Policy to be written with the City of WAYNE as the insured
 

General Aggregate	\$1,000,000
Each Occurrence	\$1,000,000
  
- E. Umbrella or Excess Liability
 

Contractor is granted the option of arranging coverage under a single policy for the full limits required or by a combination of underlying policies with the balance provided by an Excess Liability or Umbrella Liability policy, with Each Occurrence and the Aggregate Limits equal to the total limits requested.

This insurance required by this Article 5 shall include the specific coverage and be written for not less than the limits of liability and coverages provided herein or in the Supplementary Condition, or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All such insurance shall contain a

provision that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and ENGINEER. All such insurance shall remain in effect until final payment and, at all times thereafter, when CONTRACTOR may be correcting, removing or replacing defective work in accordance with Article 13. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two (2) years after final payment and furnish OWNER and ENGINEER with evidence of continuation of such insurance at final payment and one (1) year thereafter.

6. The comprehensive general liability insurance required to Article 5 will include contractual liability insurance applicable to CONTRACTOR's obligations under Article 6.
7. The CONTRACTOR shall maintain, during the life of this contract, OWNER'S and CONTRACTOR'S Protective Liability Coverage in the name of:
  - A. The OWNER
  - B. The ENGINEER
  - C. Others, if specifically required by special permission in the Contract Documents.

This coverage shall include the entire work. The CONTRACTOR shall furnish a Certificate of Insurance certifying that this OWNER'S and CONTRACTOR'S Protective Liability Insurance includes all SUBCONTRACTORS's engaged in the work. The OWNER's and CONTRACTOR'S Protective Liability Coverage shall contain the following endorsement:

"It is hereby understood and agreed that such insurance as is afforded shall include specific coverage for the so-called Explosion, Collapse and Underground Hazards, which covers damage or structural injury to buildings or adjacent structures arising from operations under this Contract including excavation or tunneling and damage sustained by wires, conduits, mains, sewers and the like, occasioned by the CONTRACTOR's sub-surface operations."

#### **Property Insurance**

8. Unless otherwise provided in these General Conditions, CONTRACTOR shall purchase and maintain property insurance upon the work at the site to the full insurable value thereof (subject to such deductible amounts as required by law). This insurance shall include the interests of OWNER, ENGINEER, CONTRACTOR and SUBCONTRACTOR in the work, shall insure against the perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage, including theft, vandalism and malicious mischief, collapse and water damage and such other perils as may be provided in these General Conditions, and shall include damages, losses and expenses arising out of, or replacement of, any property (including fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance or otherwise provided in the Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance in transit when such portions of the work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with Article 5 shall contain a provision that the coverage afforded will not be canceled or materially changed until at least 30 days prior written notice has been given to the OWNER and ENGINEER.
9. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR or SUBCONTRACTORS in the work to the extent of any deductible amounts that are provided in this contract. If CONTRACTOR wishes property insurance coverage

within the limits of such amounts, CONTRACTOR may purchase and maintain it at his own expense.

10. OWNER and CONTRACTOR waive all rights against each other and the SUBCONTRACTOR and their agents and employees and against ENGINEER and separate CONTRACTORS (if any) and their SUBCONTRACTOR's agents and employees for damages caused by fire or other perils to the extent covered by insurance provided under Article 5 or any other property insurance applicable to the work, except such rights as they may have to the proceeds of such insurance held by OWNER as trustee. CONTRACTOR shall require similar written waivers from each SUBCONTRACTOR (in accordance with Article 6 as applicable); each such waiver will be in favor of all other parties enumerated in this Article.
11. Any insured loss under the policies of insurance required by this Article shall be adjusted with OWNER and made payable to OWNER as trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause and of this Article. OWNER shall deposit, in a separate account, any money so received, and he shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged work shall be repaired or replaced, the monies so received applied on account thereof and the work and the cost thereof covered by an appropriate Change Order.
12. OWNER, as trustee, shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing, within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection is made, OWNER, as trustee, shall make settlement with the insurers in accordance with such agreements as the parties in interest may reach. If required in writing by any party in interest, OWNER, as trustee, shall, upon occurrence of an insured loss, give bond for the proper performance of his duties.

### **Acceptance of Insurance**

13. If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with Article 5 on the basis of its not complying with the Contract Documents, OWNER will notify the CONTRACTOR in writing thereof within 30 days of the date of delivery of such certificates to OWNER in accordance with Article 2.
14. If OWNER finds it necessary to occupy or use a portion or portions of the work prior to Substantial Completion of all work, such use or occupancy may be accomplished in accordance with Article 14; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and, in writing, effected the changes in coverage necessary thereby. The insurers provided the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or lapse on account of any such partial use or occupancy.
15. In order to determine financial strength and reputation of insurance carriers, all companies providing the coverage required shall be licensed or approved by the Insurance Bureau of the State of Michigan and shall have a financial rating not lower than XI and a policyholder's service rating no lower than A- as listed in A.M. Best's Key Rating Guide, current edition. Companies with ratings lower than A- and XI will be acceptable only upon written consent of the OWNER.

## **GENERAL CONDITIONS**

### **ARTICLE 6: CONTRACTOR'S RESPONSIBILITIES**

#### **Supervision and Superintendence**

16. CONTRACTOR shall supervise and direct the work competently and efficiently, devoting such attention thereto and apply such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to see that the finished work complies accurately with the Contract Documents.
17. CONTRACTOR shall keep on the work site at all times, during its progress, a competent resident superintendent who shall not be replaced without written notice to OWNER and ENGINEER, except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.
18. CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the Contract Documents. CONTRACTOR shall, at all times, maintain good discipline and order at the site. Except in connection with the safety or protection of persons, or the work or property at the site, or adjacent thereto, and, except as otherwise indicated herein, all work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday without OWNER's consent.
19. CONTRACTOR shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities, and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the work.
20. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by OWNER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.
21. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.
22. Whenever materials or equipment are specified or described in the drawings or specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers or distributors may be accepted by OWNER if sufficient information is submitted by CONTRACTOR to allow OWNER to determine that the material or equipment proposed is equivalent to that named. The procedure for review will be as set forth in Article 6 below or as supplemented in the General Requirements.
  - A. Requests for review of substitute items of material and equipment will not be accepted by OWNER and ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to

furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to OWNER through the ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equal substance to that specified, and be suited to the same use and capable of performing the same functions that specified. The application will state whether, in the drawing or specifications, to adapt to, the design to the substitute and whether or not the incorporation or use the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application, and available maintenance, repair and replacement service will be indicated. The application also will contain an itemized estimate of all costs that will result directly or indirectly from acceptance of each substitute, including costs of redesign and claims of other CONTRACTORS' affected by the resulting change. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense additional data about the proposed substitute. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

- B. ENGINEER will record time required by ENGINEER and ENGINEER's consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the drawings or specifications occasioned thereby. Whether or not ENGINEER accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the changes of ENGINEER and ENGINEER's consultants for evaluating any proposed substitute.

#### **Concerning SUBCONTRACTOR**

- 23. CONTRACTOR shall not employ any SUBCONTRACTOR or other person or organization (including those who are to furnish the principal items of materials or equipment), whether initially, or as a substitute, against whom OWNER may have any objection. Acceptance of any SUBCONTRACTOR, other person or organization by OWNER shall not constitute a waiver of any rights of OWNER to reject defective work. After the giving of the Notice of Award, if the OWNER, after the investigation, has reasonable objection to any SUBCONTRACTOR, other persons or organizations, the OWNER may request the Successful Bidder to provide an acceptable substitute without an increase in the contract price. In such a case, neither the OWNER nor the ENGINEER would be liable for any damages or remedies of either the CONTRACTOR or SUBCONTRACTOR or any other said person or organization. It is the responsibility of the CONTRACTOR to inform the SUBCONTRACTOR or other person or organization to the provision of the contract prior to the parties being contractually bound.
- 24. CONTRACTOR shall be fully responsible for all acts and omissions of his SUBCONTRACTOR and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions of persons directly employed by CONTRACTOR. Nothing in the Contract Documents shall create any contractual relationship between OWNER and ENGINEER and any SUBCONTRACTOR or other person or organization having a direct contract with CONTRACTOR, nor shall it create any obligation on the part of the OWNER or ENGINEER to pay or to see to the payment of any monies due any SUBCONTRACTOR or other persons or organizations.
- 25. The divisions and sections of the specifications and the identifications of any drawings shall not control CONTRACTOR in dividing the work among SUBCONTRACTORS or delineating the work to be performed by any specific trade.

26. All work performed for CONTRACTOR by a SUBCONTRACTOR will be pursuant to an appropriate agreement between CONTRACTOR and the SUBCONTRACTOR, which specifically binds the SUBCONTRACTOR to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER, and contains waiver provisions as required by Article 5. CONTRACTOR shall pay each SUBCONTRACTOR a just share of any insurance monies received by CONTRACTOR on account of losses under policies issued pursuant to Article 5.

### **Patent Fees and Royalties**

27. CONTRACTOR shall pay all license fees and royalties and assume costs incidental to the use in the performance of the work or the incorporation of the work of any invention, design, process, product or device, which is the subject of patent rights or copyrights held by others.

28. The CONTRACTOR shall familiarize himself with any such possible costs prior to bidding. CONTRACTOR hereby indemnifies and holds harmless OWNER and ENGINEER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorney's fees) arising out of any infringement of patent rights or copyrights incidental to the use in the performance of the work, or resulting from the incorporation of the work or any invention, design, process, product or device, and shall defend all such claims in connection with any alleged infringement of such rights.

### **Permits**

Unless otherwise provided herein, CONTRACTOR shall obtain and pay for all construction permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the work that are applicable at the time of opening of bids. CONTRACTOR shall pay all charges of utility service companies for connections to the work and for capital costs related thereto.

Permits will be required from the following agency for work within their right-of-way

- Wayne County Roads (not required)

### **Laws and Regulations**

CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the work. If CONTRACTOR observes that the specifications and drawings are at variance therewith, CONTRACTOR shall give ENGINEER prompt written notice thereof, any necessary changes shall be adjusted by an appropriate modification. If CONTRACTOR performs any work knowing or having reasons to know that it is contrary to such laws, ordinances, rules and regulations, the CONTRACTOR shall bear all costs arising therefrom. It shall be the CONTRACTOR's responsibility to make certain that the specifications and drawings are in accordance with such laws, ordinances, rules and regulations.

### **Taxes**

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the law of the place of the project.

### **Use of Premises**

29. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits or the requirements

of the Contract Documents and shall not reasonably encumber the premises with construction equipment or other materials or equipment.

30. During the progress of the work, CONTRACTOR shall keep the premises free from accumulation of waste materials, rubbish and other debris resulting from the work. At the completion of the work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore, to their original condition, those portions of the site not designated for alteration by the Contract Documents.
31. CONTRACTOR shall not load and permit any part of any structure to be loaded in any manner that will endanger the structure nor shall CONTRACTOR subject any part of the work or adjacent property to stresses or pressures that will endanger it.

### **Record Documents**

CONTRACTOR shall keep one (1) record copy of all specifications, drawings, addenda, modifications, shop drawings and samples at the site in good order and annotated to show all changes made during the construction process. These shall be available to ENGINEER for examination and shall be delivered to ENGINEER for OWNER upon completion of the work.

### **Safety and Protection**

32. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. CONTRACTOR shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to (but not limited to) the following:
  - A. All employees on the work and other persons who may be affected thereby
  - B. All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and
  - C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners or adjacent property and utilities when prosecution of the work may affect them. All damage, injury or loss to any property referred to in Article 6 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for who acts on behalf of them may be liable, shall be remedied by CONTRACTOR. CONTRACTOR's duties and responsibilities for the safety and protection of the work shall continue until such time as the work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with Article 14, that the work is acceptable.

33. CONTRACTOR shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

### **Emergencies**

In emergencies affecting the safety or protection of persons or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby.

### **Shop Drawings and Samples**

34. After checking and verifying all field measurements, CONTRACTOR shall submit to ENGINEER for review, in accordance with the accepted schedule of shop drawings submission (see Article 2), five (5) copies (unless otherwise specified in the General Requirements) of all shop drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable ENGINEER to review the information as required. The review by the ENGINEER is for the purpose of familiarizing the ENGINEER with the work of the CONTRACTOR and does not constitute an approval by the ENGINEER of any of the submitted material. The CONTRACTOR is solely responsible for the correctness and accuracy of all submitted material.
35. CONTRACTOR also shall submit to ENGINEER for review, with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of CONTRACTOR, identified clearly as to materials, manufacturer, any pertinent catalog numbers and the use for which intended. The review of the ENGINEER is for the purpose of familiarizing the ENGINEER with the work of the CONTRACTOR and does not constitute an approval by the ENGINEER of any of the submitted materials. The CONTRACTOR is solely responsible for the correctness and accuracy of all submitted material.
36. At the time of each submission, CONTRACTOR shall, in writing, call ENGINEER's attention to any deviations that the shop drawings or samples may have from the requirements of the Contract Documents.
37. ENGINEER will review the shop drawings and samples, but ENGINEER's review shall be only for general and approximate conformance with the design concept of the project and for general and approximate compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate a review of the assembly in which the item functions. CONTRACTOR shall make any corrections required by ENGINEER and shall return the required number of corrected copies of shop drawings and resubmit new samples for review (as stated above for general and approximate compliance). CONTRACTOR shall direct specific attention, in writing, to reviews other than the correction called for by ENGINEER on previous submittals. CONTRACTOR's stamp of approval on any shop drawing or samples shall constitute a representation to OWNER and ENGINEER that CONTRACTOR has determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data and assumes full and sole responsibility for doing so, and that CONTRACTOR has reviewed or coordinated each shop drawing or sample with the requirements of the work and the Contract Documents.

38. Where a shop drawing or sample is required by the specifications, no related work shall be commenced until the submittal has been reviewed by ENGINEER.
39. ENGINEER's review of shop drawings or samples shall not relieve CONTRACTOR from any responsibility for any deviations from the Contract Documents unless CONTRACTOR has, in writing, called ENGINEER's attention to such deviation at the time of submission and ENGINEER has given written concurrence and approval to the specific deviation at the time of submission and ENGINEER has given written concurrence and approval to the specific deviation, nor shall any concurrence or approval by ENGINEER relieve CONTRACTOR from his sole responsibility for error or omissions in the shop drawings.
40. CONTRACTOR shall carry on the work and maintain the progress schedule during all disputes or disagreements with OWNER, including, but not limited to, disputes and disagreements concerning change of conditions, change of quantities or change of scope of work. No work shall be delayed or postponed pending resolution of any damages or disagreements, except as CONTRACTOR and OWNER may otherwise agree in writing.

#### **Indemnification**

41. To the fullest extent permitted by law, CONTRACTOR agrees to indemnify, defend and save harmless the OWNER their officials, employees and agents, from and against all claims, damages, loss or expense (including, but not limited to, costs and attorney fees) by reason of any liability asserted or imposed upon the OWNER, their officials, agents or employees, for damages because of bodily injury, including death, at any time resulting therefrom, sustained by any person or persons or on account of damage to property including loss of use thereof, arising out of, or in consequence of, the performance of the work described herein, whether such injuries to persons or damage to property is due, or claimed to be due, directly or indirectly, to the negligence or omission of the CONTRACTOR, any SUBCONTRACTOR, the OWNER or their officials, employees or agents.
42. In any and all claims against OWNER and ENGINEER or any of their agents or employees by any employee of CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnifications obligation under Article 6 shall not be limited, in any way, by any limitation, on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any SUBCONTRACTOR, under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

## **GENERAL CONDITIONS**

### **ARTICLE 7: WORK BY OTHERS**

OWNER may perform additional work related to the Project by himself or have additional work performed by utility service companies or other direct contracts that shall contain General Conditions similar to these. CONTRACTOR shall afford the utility service companies and the other CONTRACTORS, who are parties to such direct contracts (or OWNER, if OWNER is performing the additional work with OWNER'S employees) all possible opportunity for the introduction and storage of materials and equipment and the execution of work and shall properly connect and coordinate his work with theirs.

If any part of CONTRACTOR'S work depends, for proper execution of results, upon the work of any such other CONTRACTOR or utility service company (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER, in writing, defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR'S failure to report shall constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S work except for latent or non-apparent defects and deficiencies in the other work.

CONTRACTOR shall do all cutting, fitting and patching of his work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work.

If the performance of additional work by other CONTRACTORS or utility service companies or OWNER was not noted in the Contract Documents, written notice, thereof, shall be given to CONTRACTOR prior to starting any such additional work.

## **GENERAL CONDITIONS**

### **ARTICLE 8: OWNER'S RESPONSIBILITY**

OWNER shall issue all communications to CONTRACTOR through ENGINEER.

The ENGINEER is designated as the representative of the OWNER during the period of the contract. Since ENGINEER had relied on this employment by OWNER, ENGINEER is entitled to all damages and remedies in law and equity in case of termination by OWNER.

## **GENERAL CONDITIONS**

### **ARTICLE 9: ENGINEER'S STATUS DURING CONSTRUCTION**

#### **Owner's Representative**

ENGINEER will be OWNER's representative during the construction period, but authority to bind the OWNER is limited as set forth in Article 10 of these General Conditions.

#### **Visits to Site**

ENGINEER, through the ENGINEER's inspector and construction engineer, will make visits to the site at intervals appropriate to the various stages of construction, and possibly on a daily basis, to observe the progress and quality of the executed work. ENGINEER's inspector will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed work will conform to the contract documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the work. Limitations on responsibility of ENGINEER, stated above, shall not be deemed altered even if ENGINEER has full-time inspector on the site.

#### **Clarifications and Interpretations**

ENGINEER may issue, within a reasonable time, such written clarifications or interpretations of the contract documents (in the form of drawings or otherwise) as ENGINEER may determine necessary. No increase in contract price or contract time is justified or allowed if the clarification or interpretation of the contract documents is inferable from the overall intent of the contract documents.

#### **Project Presentation**

If OWNER and ENGINEER agree, ENGINEER will furnish an inspector to assist OWNER in observing the performance of the work. The duties, responsibilities and limitations of authority of any such inspectors, construction engineers and assistants will be provided in Article 9 above.

#### **Decisions on Disagreements**

ENGINEER will be the initial interpreter of the requirements of the contract documents. Claims, disputes and other matters relating to the acceptability of the work or the interpretation of the

requirements of the contract documents pertaining to the execution and progress of the work shall be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render within the time the ENGINEER deems required to complete any related investigation of the claim. Written notice of each such claim, dispute and other matter shall be delivered by the claimant to ENGINEER and other party to the Agreement within 15 days of the occurrence of the event, giving rise thereto, together with any supporting data. In his capacity as interpreter, ENGINEER will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

The rendering of a decision by ENGINEER pursuant to Article 9 with respect to any such claim, dispute or other matter (except any which have been waived by the marking or acceptance of final payment as provided in Article 14) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the contract documents or at law in respect of any such claim, dispute or other matter.

#### **Limitations on ENGINEER'S Responsibility**

1. Neither ENGINEER's authority to act under this Article 9 or elsewhere in the contract documents, nor any decision made by ENGINEER, either to exercise, or not exercise such authority, shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, or any SUBCONTRACTOR, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the work.
2. Whenever in the contract documents the terms "as ordered," "as directed," "as required," "as allowed," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory," or adjectives of like effect or import are used to describe requirement, direction, review or judgment of ENGINEER as to the work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the work for compliance with the contract documents. The use of any such term or adjective never indicates that ENGINEER shall have authority to undertake responsibility contrary to the provisions of Article 9.
3. ENGINEER will not be responsible for any of CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for any of CONTRACTOR's failure to perform the work in accordance with the contract documents. The CONTRACTOR shall be solely responsible for any of CONTRACTOR's means, methods, techniques, sequences or procedures, or the safety precautions and programs incidents thereto.
4. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any SUBCONTRACTORS or of the agents or employees of any CONTRACTOR or SUBCONTRACTOR or of any persons at the site or otherwise performing any of the work. The CONTRACTOR will be solely responsible for the acts or omissions of CONTRACTOR or of any SUBCONTRACTOR or of any other persons at the site or otherwise performing any of the work.

## **GENERAL CONDITIONS**

### **ARTICLE 10: CHANGES IN THE WORK**

Without invalidating the Agreement, OWNER may, at any time, or from time to time, order additions, deletions or revisions in the work; these will be authorized by Change Orders. Upon receipt of a Change Order, CONTRACTOR shall proceed with the work involved. All such work shall be executed under the applicable conditions of the contract documents. If any Change Order causes a decrease in the contract price or a shortening of the contract time, an equitable adjustment will be made.

ENGINEER may authorize changes in the work, which, in his judgment, are reasonably required for the proper fulfillment of the contract.

Additional work performed without authorization will not entitle CONTRACTOR to an increase in the contract price or an extension of the contract time, except in the case of an emergency as provided in Article 6 and except as provided in this Article.

OWNER shall execute appropriate Change Orders prepared by ENGINEER covering changes in the work, which are required by OWNER or required because of emergencies or because of uncovering work found not to be defective or as provided in Article 11 or because of any other claim of CONTRACTOR for a change in the contract time or the contract price, which is recommended by ENGINEER.

If notice of any change affecting the general scope of the work or change in the contract price is required by the provisions of any bond to be given to the surety, it will be CONTRACTOR'S sole responsibility to so notify the surety, and the amount of each applicable bond shall be adjusted accordingly. CONTRACTOR shall furnish proof of such adjustment to OWNER and ENGINEER without the need for either OWNER or ENGINEER requesting such proof.

## **GENERAL CONDITIONS**

### **ARTICLE 11: CHANGE OF CONTRACT PRICE**

The contract price constitutes the total compensation (subject to authorized adjustment) payable to CONTRACTOR for performing the work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the contract price.

The contract price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered to OWNER and ENGINEER within 15 days of the occurrence of the event, giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within 30 days of such occurrence unless ENGINEER allows an additional period of time to ascertain accurate cost data. All claims for adjustment in the contract price shall be determined by ENGINEER if OWNER and CONTRACTOR cannot otherwise agree on the amount involved.

The value of any work covered by a Change Order, or of any claim for an increase or decrease in the contract price, shall be determined in one of the following ways:

1. Where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of Article 11).
2. By mutual acceptance of a lump sum.
3. On the basis of the cost of the work (determined as provided in Article 11) plus a CONTRACTOR's fee for overhead and profit (determined as provided in Article 11).

#### **Cost of the Work**

The term "cost of the work" means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the project, shall include only the following items, and shall not include any of the costs itemized in Article 11.

4. The payroll costs for employees necessary for efficient and acceptable production in the direct employ of CONTRACTOR in the performance of the work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the work shall be apportioned on the basis of their time spent on the work. Payroll costs shall include, but not be limited to, salaries and wages, plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmens' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing work after regular working hours, on Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.
5. Cost of materials and equipment furnished and incorporated in the work provided those materials and equipment are necessary for efficient and acceptable production as determined by ENGINEER.

6. Payments made by CONTRACTOR to the SUBCONTRACTORS for Work performed by SUBCONTRACTORS. If required by OWNER, CONTRACTOR shall obtain competitive bids from SUBCONTRACTORS acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids will be acceptable. If a SUBCONTRACTOR provides that the SUBCONTRACTOR is to be paid on the basis of cost of the work plus a fee, the SUBCONTRACTOR's cost of the work shall be determined in the same manner as CONTRACTOR's cost of the work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

The term "cost of the work" shall not include any of the following:

7. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR, whether at the site or in his principal, or a branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in Article 11 — all of which are to be considered administrative costs covered by the CONTRACTOR's fee.
8. Expenses of CONTRACTOR's principal and branch offices, other than CONTRACTOR's office at the site.
9. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the work and charges against CONTRACTOR for delinquent payment.
10. Cost of premiums for all bonds and for all insurance, whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same, including additional bonds and insurance required because of changes in the work.
11. Costs due to the negligence of CONTRACTOR, any SUBCONTRACTOR, or anyone directly or indirectly employed by any of them or for whose acts any of them, may be liable, including, but not limited to, the correction of defective work, disposal of materials or equipment wrongly applied and making good any damage to property.
12. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in this Article.

The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall not exceed 15 percent of cost of labor and materials.

For costs incurred under this Article, the CONTRACTOR's fee shall be five percent (5%); and if a subcontract is on the basis of cost of the work plus a fee, the maximum allowable to the SUBCONTRACTOR as a fee for overhead and profit shall be 10 percent.

The amount of credit to be allowed by CONTRACTOR to OWNER for any such charge that which results in a net decrease in cost will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any.

Whenever the cost of any work is to be determined pursuant to this Article, CONTRACTOR will submit, in form acceptable to ENGINEER, an itemized cost breakdown together with supporting data.

Where the quantity of the work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such work indicated in the Contract Documents, an appropriate Change Order may be issued on recommendation of ENGINEER to adjust the unit price.

In general, if the actual quantity of work is within 30 percent of the quantity indicated in the Contract Documents (whether more or less), the difference shall not be considered material or significant. For larger differences, the ENGINEER's decision as to whether the amount of actual quantity of work is materially and significantly different from the quantity indicated on the Contract Documents is final.

#### **Cash Allowances**

It is understood that CONTRACTOR has included in the contract price all allowances so named in the Contract Documents and shall cause the work so covered to be done by such SUBCONTRACTORS, manufacturers, fabricators, suppliers or distributors and for such sums within the limit of the allowances as may be acceptable to ENGINEER. CONTRACTOR agrees that the original contract price includes such sums as CONTRACTOR deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection will be valid.

## **GENERAL CONDITIONS**

### **ARTICLE 12: CHANGE OF CONTRACT TIME**

The contract time may only be changed by a Change Order. Any claim for an extension in the contract time shall be based on written notice delivered to OWNER and ENGINEER within 15 days of the occurrence of the event, giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within 30 days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. All claims for adjustment in the contract time shall be determined by ENGINEER if OWNER and CONTRACTOR cannot otherwise agree. Any change in the contract time resulting from any such claim shall be incorporated in a Change Order.

The contract time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR, if a claim is made, therefore, as provided in this Article. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 7 or to fires, floods, epidemics or acts of God, but not labor disputes or severe weather conditions.

All time limits for CONTRACTOR stated in the Contract Documents are of the essence to the OWNER and are incorporated, as such, in the contract.

**GENERAL CONDITIONS**  
**ARTICLE 13: WARRANTY AND GUARANTEE**  
**TESTS AND INSPECTIONS CORRECTION, REMOVAL OR ACCEPTANCE**  
**OF DEFECTIVE WORK**

**Warranty and Guarantee**

CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all work will be in accordance with the Contract Documents and will not be defective. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

**Tests and Inspections**

CONTRACTOR shall give OWNER's representative timely notice of readiness of the work for all required inspections, tests or approvals.

If any law, ordinance, rule, regulation, code or order of any public body having jurisdiction requires any work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith, and furnish OWNER the required certificates of inspection, testing or approval. CONTRACTOR also shall be responsible for, and shall pay all costs in connection with, any inspection or testing required in connection with OWNER's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the work.

If any work that is to be inspected, tested or approved is covered without concurrence of OWNER'S representative, it must, if required by OWNER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense.

Neither observations by ENGINEER nor inspectors, tests or approvals by ENGINEER, OWNER or others shall relieve CONTRACTOR from any of his obligations to perform the work in accordance with the Contract Documents.

**Owner May Stop the Work**

If the work is defective or CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, OWNER may order CONTRACTOR to stop the work, or any portion thereof, until the cause of such order has been eliminated. CONTRACTOR shall incur all the expenses related directly or indirectly to such work stoppage.

**Correction or Removal of Defective Work**

If required by OWNER, CONTRACTOR shall promptly, without cost to OWNER, either correct any defective work, whether or not fabricated, installed or completed, or, if the work has been rejected by ENGINEER, remove it from the site and replace it with non-defective work without any change in Contract Price.

### **Two-Year Correction Period**

If within two (2) year after the date of substantial completion, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER, and in accordance with OWNER's written instructions, either correct such defective work or, if it has been rejected by OWNER, remove it from the site and replace it with non-defective work. If CONTRACTOR does not promptly comply with the terms of such instructions, or, in an emergency, where delay would cause serious loss or damage, OWNER may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by CONTRACTOR.

### **Acceptance of Defective Work**

If, instead of requiring correction or removal and replacement of defective work, OWNER prefers to accept it, OWNER may do so. In such case, if acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the contract price or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by CONTRACTOR to OWNER.

If CONTRACTOR fails, within a reasonable time after written notice to proceed, to correct defective work or to remove and replace rejected work in accordance with Article 13, or if CONTRACTOR fails to perform the work in accordance with the Contract Documents (including any requirements of the progress schedule. OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporated in the work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise his rights under this paragraph. All direct and indirect costs of OWNER in exercising such rights shall be charged against CONTRACTOR, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the contract price. Such direct and indirect costs shall include, in particular, but without limitation, compensation for additional professional services required and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective work. CONTRACTOR shall not be allowed an extension of the contract time because of any delay in performance of the work attributed to the exercise by OWNER of OWNER's rights hereunder.

# **GENERAL CONDITIONS**

## **ARTICLE 14: PAYMENTS TO CONTRACTOR AND COMPLETION**

### Schedules

At least 10 days prior to submitting the first Application for a progress payment, CONTRACTOR shall (except as otherwise specified in the General Requirements) submit to OWNER a progress schedule, a final schedule of shop drawing submission and, where applicable, a schedule of values shall include quantities and unit prices aggregating the contract price and shall subdivide the work into component parts. These schedules are submitted strictly as information that may help the OWNER in scheduling and shall not be construed as binding the OWNER to pay the CONTRACTOR in accordance with such values if used in the progress payment.

### Application for Progress Payment

At least 10 days before progress payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the work completed as of the date of the Application and accompanied by supporting documentation. Each subsequent Application for Payment shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the work have been applied to discharge in full all of CONTRACTOR's obligations reflected in prior Applications for Payment. Retainage with respect to progress payments will be at least 10 percent, unless state law required otherwise.

### CONTRACTOR's Warranty of Title

CONTRACTOR warrants and guarantees that title to all work, materials and equipment covered by any Application for Payment, whether incorporated in the project or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

### Review of Applications for Progress Payment

ENGINEER will, within 15 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating, in writing, ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. OWNER shall, within 25 days of presentation to him of the Application for Payment with ENGINEER's recommendation, pay CONTRACTOR the amount recommended.

By recommending any payments to the CONTRACTOR, ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the work or that the means, methods, techniques, sequences and procedures of construction have been reviewed or that any examination has been made to ascertain how or for what purpose, CONTRACTOR has used the monies paid or to be paid to CONTRACTOR on account of the contract price or that title or any work, materials or equipment has passed to OWNER free and clear of any liens.

ENGINEER may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such recommendation to OWNER. He also may refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify such payment previously recommended to such extent as may be reasonable in ENGINEER's opinion to protect OWNER from loss because:

1. The work is defective or completed work has been damaged requiring correction or replacement.
2. Written claims have been made against OWNER or liens have been filed in connection with the work.
3. The contract price has been reduced because of modifications.
4. OWNER has been required to correct defective work or complete the work in accordance with Article 13.
5. Of CONTRACTOR's unsatisfactory prosecution of the work in accordance with the Contract Documents.
6. CONTRACTOR's failure to make payment to SUBCONTRACTORS or for labor, materials or equipment.
7. Previous overpayments to CONTRACTOR.

### **Substantial Completion**

When CONTRACTOR considers the entire work ready for its intended use, CONTRACTOR shall, in writing to OWNER and ENGINEER, certify that the entire work is substantially complete and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, CONTRACTOR, ENGINEER, and/or OWNER shall make an inspection of the work to determine the status of completion. If ENGINEER does not consider the work substantially complete, ENGINEER will notify CONTRACTOR, giving his reasons therefore. If ENGINEER considers the work substantially complete, ENGINEER may prepare and deliver to OWNER a Statement of Substantial Completion, which may fix the date of Substantial Completion. There also may be attached to the statement a tentative list of items to be completed or corrected before final payment. OWNER shall have 21 days after receipt of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the work is not substantially complete, ENGINEER will, within 21 days, notify CONTRACTOR, in writing, stating his reasons therefore.

OWNER shall have the right to exclude CONTRACTOR from the work after the date of substantial completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

### **Partial Utilization**

Use of OWNER of completed portions of the work may be accomplished prior to substantial completion of all the work subject to the following:

8. OWNER, at any time, may request CONTRACTOR, in writing, to permit OWNER to use any part of the work that OWNER believes to be substantially complete and which may be used without significant interference with construction of the other parts of the work.

9. In lieu of the issuance of a Certificate of Substantial Completion as to part of the work, OWNER may take over operation of a facility constituting part of the work whether or not it is substantially complete if such facility is functionally and separately useable; provided that prior to any such takeover, OWNER and CONTRACTOR have agreed as to the division of responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

### **Final Application for Payment**

After CONTRACTOR has completed all the work and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents — all as required by the Contract Documents — and after ENGINEER has indicated that the work appears to be acceptable (subject to the provisions of this Article), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as OWNER may reasonably require, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all liens arising out of, or filed in connection with, the work. In lieu thereof, and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a lien could be filed; and that all payrolls, material and equipment bills, and other indebtedness or otherwise satisfied; and consent of the surety, if any, to final payment. If any SUBCONTRACTOR, manufacturer, fabricator, supplier or distributor fails to furnish a release or receipt in full, CONTRACTOR may furnish a bond or other collateral satisfactory to OWNER to indemnify OWNER against any lien.

### **Final Payment and Acceptance**

If, on the basis of ENGINEER's review of the final Application for Payment and accompanying documentation — all as required by the Contract Documents — ENGINEER is satisfied that the work has been completed and CONTRACTOR has fulfilled his obligations under the Contract Documents, ENGINEER may, within 20 days after receipt of the final Application for Payment, indicate in writing his recommendation of payment and present the Application to OWNER for payment. Thereupon, ENGINEER will give written notice to OWNER and CONTRACTOR that the work is acceptable subject to the provisions of this Article. Otherwise, ENGINEER will return the Application to CONTRACTOR indicating, in writing, the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall, within 30 days after receipt thereof, pay CONTRACTOR the amount recommended by ENGINEER.

### **CONTRACTOR's Continuing Obligation**

CONTRACTOR's obligation to perform and complete the work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER nor the recommendation of any progress or final payment by ENGINEER nor the issuance of a notice of acceptability by ENGINEER pursuant to Article 14 nor any correction of defective work by OWNER shall constitute an acceptance of work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the work in accordance with the Contract Documents.

### **Waiver of Claims**

The making and acceptance of final payment shall:

10. Not constitute any waiver of any claims by OWNER against CONTRACTOR, including claims arising from unsettled liens, from defective work appearing after final inspection or from failure to comply with the Contract Documents or the terms of any special inspection or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; also, it shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents; and
11. Constitute a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

## GENERAL CONDITIONS

### ARTICLE 15: SUSPENSION OF WORK AND TERMINATION

#### **OWNER May Suspend Work**

OWNER may, at any time, and without cause, suspend the work or any portion thereof for a period of not more than 120 days by notice, in writing, to CONTRACTOR. CONTRACTOR shall resume the work with 2 weeks notice by OWNER. CONTRACTOR will be allowed an increase in the Contract Price only as attributable to demobilization and remobilization cost and not to any other expense, including rental fee during suspension. The CONTRACTOR shall have the sole duty of informing, in advance, all SUBCONTRACTORS and any interested parties about the provision. OWNER and ENGINEER are not liable for any loss of any party arising out of invoking this section.

#### **OWNER May Terminate**

Upon the occurrence of any one or more of the following events:

12. If CONTRACTOR is adjudged bankrupt or insolvent.
13. If CONTRACTOR makes a general assignment for the benefit of creditors.
14. If a trustee or receiver is appointed for CONTRACTOR or for any of CONTRACTOR's property.
15. If CONTRACTOR files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws.
16. If CONTRACTOR repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment.
17. If CONTRACTOR fails to make payments to SUBCONTRACTORS or for labor, materials or equipment within 60 days of receiving said payment from OWNER.
18. If CONTRACTOR disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction.
19. If CONTRACTOR disregards the authority of ENGINEER.
20. If CONTRACTOR otherwise violates, in any substantial way, any provisions of the Contract Documents. Restoration work always shall be deemed as a substantial provision of the Contract Documents.

OWNER may, after giving CONTRACTOR and his surety seven (7) days' written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporating in the work all materials and equipment stored at the site for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the work as OWNER may deem expedient. In such case, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER shall be verified by ENGINEER and incorporated in a Change Order; but, in finishing the work, OWNER shall not be required to obtain the lowest figure for the work performed.

Where CONTRACTOR's services have been so terminated by OWNER, the termination shall not affect any rights of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

Upon seven (7) days' written notice to CONTRACTOR, OWNER may, without cause and without prejudice to any of the OWNER's other rights or remedies, elect to abandon the work and terminate the Agreement with the CONTRACTOR. In such a case, CONTRACTOR shall be paid for work executed and demobilization expenses only.

## **GENERAL CONDITIONS**

### **ARTICLE 16: MISCELLANEOUS**

#### **Giving Notice**

Whenever any provision of the Contract Documents requires the giving of written notice to the CONTRACTOR, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by mail to the last business address known to the giver of the notice. Notice to the ENGINEER is validly given if mailed by certified mail to his business office.

#### **Computation of Time**

When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction such day shall be omitted from the computation.

#### **General**

The duties and obligations imposed by these General Conditions upon the CONTRACTOR and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by Articles 6, 13, 14 and 15 and all of the rights and remedies available to either ENGINEER or OWNER which are otherwise imposed or available by law or contract, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in Contract Documents by CONTRACTOR shall survive final payment and termination or completion of the Agreement.

## **CITY OF Belleville STANDARD NOTES**

1. Prior to construction, the contractor shall attend a preconstruction meeting, at a time and place as arranged by the community, in which various utility companies and governmental agency representatives will be present.
2. Prior to construction, the contractor must have in his possession a copy of all permits necessary to construct a connection to, or an extension of, the water supply, sanitary sewer, or storm sewer systems.
3. The contractor shall maintain his construction operations within the presently existing road rights-of-way and easements as noted on the plans throughout the project. In the event that the contractor deems it necessary or advisable to operate beyond the limits of the existing rights-of-way or easements, he shall be responsible for making special written agreements with the property owners and shall furnish such copies of agreements to the community engineer.
4. The contractor shall notify "Miss Dig" (800-482-7171) 3 days (not including holidays or weekends) before starting construction. The contractor shall make any necessary arrangements with utility companies for relocation of existing utilities. These arrangements shall be made with sufficient time to allow the relocation work to be completed without interfering with or delaying the construction schedule.
5. The contractor shall notify all utility companies and the engineer 48 hours prior to uncovering any existing utilities.
6. In all work within the Wayne County right-of-way, the contractor shall notify the County Road Commission, Engineer, and the community 72 hours prior to the start of any construction.
7. The contractor shall maintain all traffic at all times as per the Michigan Manual of Uniform Traffic Control Devices.
8. The contractor at all times shall provide emergency access to the property in the vicinity of the construction influence area for police and fire equipment, ambulances or other emergency vehicles to protect life, health, and property.

The contractor shall maintain public roads affected but the construction operations in a passable condition until such time as final restoration of these improvements can be made. If the public safety is in danger or the necessity exists for maintaining traffic, backfilling must be completed immediately. In the event that the necessary backfill material and equipment are not available when direction is given for immediate backfill, the trench shall be backfilled with native material to provide for the necessary maintenance of traffic and safety; however, the native material shall be removed within 48 hours and the trench properly backfilled.

9. No street, road, or section thereof, shall be closed to through traffic unless authorized by the agency with jurisdiction over the roads. Prior to closing a street, road, or section thereof, the contractor shall provide the engineer with a copy of a detour plan approved by the agency with jurisdiction over the roads.

In the event roads are to be closed, the contractor shall notify the local fire department, police department, local road authority, ambulance and emergency services, department of public works, public transit authority, public school system, local trash pickup authority, and public and

private utilities daily as to what streets will be partly blocked or closed, the length of time the streets will be blocked or closed and when the streets will be reopened to traffic.

10. Paved streets and driveways shall be maintained in a reasonable state of cleanliness and the contractor shall remove accumulations of debris caused by his operations. The contractor shall have, as a minimum, a wet, vacuum, pickup sweeper on the site at all times. The pavement shall be cleaned at the close of each days operation and as often as necessary before that time. Failure to comply shall be cause to stop construction. Contractor shall also comply with the local air pollution control ordinance.
11. All gravel and dirt roads, streets or driveways used shall be maintained by grading, placing dust palliatives, and maintenance gravel in sufficient quantities to eliminate dust and maintain traffic as directed by the engineer.
12. Contractor shall provide all necessary sheeting, shoring, dewatering, bracing, trench boxes, etc. to perform work safely and protect existing utilities and improvements.
13. The flow in the existing sewers shall be maintained at all times during construction
14. Culverts, ditches, drain tiles, tile fields, drainage structures, etc. that are disturbed by the contractor's operations shall be immediately restored.
15. All property irons and monuments, if disturbed or destroyed by the contractor's operations, shall be replaced by a licensed land surveyor at the contractor's expense.
16. After all the pipe, structures, etc. have been laid, constructed and backfilled, the system shall be tested and final inspected. The inspection and testing shall consist of a first inspection, television inspection (if applicable) testing, and final inspection and measurement. The contractor shall provide the necessary supervision, labor, tools, equipment, and the materials necessary for the tests which shall be conducted in the presence of the engineer. The engineer shall be notified two (2) working days in advance of all testing.

The first inspection shall be completed and all repairs made in ample time so that the television inspection of the underground portion of the system can be completed within four (4) weeks of the completion of the construction. When re-television is necessary, an additional two (2) weeks will be allowed for completion. Testing of the system as herein described shall immediately follow the television inspection and shall be completed within a two (2) week period.

Failure to maintain a schedule in compliance with these terms will automatically cause the stoppage of other work at the particular site in question until such time as the final inspection of the completed underground portion of the system has progressed to acceptable limits.

The contractor shall have the underground portion of the sewer system ready for the first inspection within two (2) weeks after the completion of utility.

The first inspections shall consist of a variable and audible check of sewers, manholes, gate wells, and other structures to ascertain that the structure steps have been placed, all lift holes plugged, the channeling of the manhole bottoms completed, all visible or audible leaks stopped, all pipe has been placed straight and true to the proper grades and elevation, the required adjusting rings and frame and cover properly installed, all trenches and structures backfilled in acceptable manner and that the system has been thoroughly cleaned.

The first inspection shall be considered completed when all the repairs have been made and the system is ready for television inspection and subsequent testing.

The contractor shall provide for television inspection of the sanitary sewer lines.

The contractor shall arrange for, engage, and pay for all expenses involved for the services of a competent company to perform this television inspection.

The television inspection shall be observed by the representatives of the owner, engineer, and the contractor. Any television viewing performed in the absence of the engineer will not be considered as a part of the final inspection.

The inspection shall involve the visual observation by closed circuit television of all sanitary sewer installed as part of this contract. The inspection shall be performed at a rate of speed which will allow examination of all points of infiltration, cracked or crushed pipe, defective joints, misalignment in line or grade, location of all WYE openings and any defects or items of poor workmanship which may appear. Any items which, in the opinion of the engineer, require repair shall be precisely located and photographed along with a detailed statement of the condition. The contractor shall take immediate action to repair such defects including excessive infiltration at any specific location, even though the infiltration limits as herein specified have not been exceeded for the entire length of the sewer being inspected. Following completion of the repair, the engineer at their discretion, may require a second television inspection of any repaired areas. The contractor shall arrange for and pay all costs involved in performing this re-inspection.

After all testing, television inspection, final restoration and clean-up have been completed, a final inspection and measurement will be done. The final inspection shall be requested by the contractor and consist of, but is not limited to, checking for proper alignment, proper grade, cleanliness, leaks, conformance to the plans and specification, proper structural and mechanical adjustments and restoration. Final measurement includes structure elevations, distance between structures, and confirmation utilities are located within the easement and right-of-way areas.

Successful completion of any test or inspection shall not relieve the contractor from their responsibility to correct any deficiency or nonconformance to the plans or specification which may thereafter become known.

# **SPECIFICATIONS FOR AUDIO/VIDEO ROUTE SURVEY**

## **Description**

The CONTRACTOR shall furnish the ENGINEER with an Audio/Video Route Survey record of the existing conditions prior to the start of construction. The CONTRACTOR must enlist the services of personnel having a minimum of one- (1-) year experience in audio/video taping of construction projects.

Complete coverage shall include all surface features located within the public right-of-way, easement areas and adjacent private properties up to building line when such properties lie within the zone of influence of construction and will be supported by appropriate audio descriptions made simultaneously with video coverage. Such coverage shall include, but not limited to, all existing driveways, sidewalks, curbs, ditches, roadways, landscaping, trees, culverts, head walls and retaining walls or buildings located within such zones of influence.

When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall be not less than 10 feet to ensure proper perspective. Audio/video tapes are to be on DVDs suitable for recording and playback on computer or standard DVD equipment.

Houses and buildings shall be identified visually by house number, when visible, in such a manner that structures of the proposed system can be located by reference. In all instances, however, location shall be identified by audio or visual means at intervals not to exceed 100 linear feet in the general direction of travel.

The rate of speed in the general direction of travel of the conveyance used during taping shall not exceed 30 feet/minute. Panning rates and zoom-in/zoom-out rates shall be controlled sufficiently such that stop action during the playback will produce clarity of detail of the object viewed.

All taping shall be done during times of good visibility. No taping shall be done during periods of visible precipitation or when more than 10 percent of the ground area is covered with snow or standing water, unless otherwise authorized by the OWNER.

Any taped coverage not acceptable to OWNER shall be re-filmed at any additional charge. The OWNER shall have the authority to designate areas for which coverage may be added or omitted. All tapes shall be properly identified as to location, time and date in a manner acceptable to the OWNER.

The audio/video taping shall be done prior to the start of any construction removals and furnished one week prior to starting construction.

To preclude the possibility of tampering or editing to any manner, all video recordings must, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording, as well as the corresponding ENGINEERING stationing numbers and street names. The date information will contain the month, day, and year; for example, 1/13/08, and be placed directly below the time information. The time information shall consist of hours, minutes, and seconds separated by colons; for example, 10:35:18. This transparent information will appear on the extreme upper left-hand or right-hand third of the screen.

## **SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL**

### **Description**

This work shall be in accordance with Division 2, Section 208 of the 2020 MDOT Standard Specifications except as herein specified.

1. The CONTRACTOR shall furnish and install of all soil erosion and sedimentation control measures including turbidity as called for in the plans or as directed by the ENGINEER.
2. The CONTRACTOR shall maintain of all measures to ensure that sediment does not build up in the drainage structure, road or at the lake. This does not include poking holes in the silt sacks to allow flow into the structure. The silt sack has to be removed from the structure, cleaned thoroughly, and reinstalled in the structure.
3. The CONTRACTOR shall clean the sediment out of all the drainage structures after the project has been completely restored.
4. All measures must remain in place until the project area has been completely restored and vegetation has been established.

## **SPECIFICATIONS FOR TRAFFIC MAINTENANCE AND CONTROL**

### **General**

Traffic shall be maintained in accordance with Division 1, Section 103 and Division 8, Section 812, of the 2020 MDOT Standard Specifications for Construction and the traffic control plans provided in the plan set including any Supplemental Specifications, and as herein specified.

The CONTRACTOR shall coordinate his operations with CONTRACTORS performing work on other projects within or adjacent to the Construction Influence Area (CIA) as described below.

### **Traffic Restrictions**

No work shall be performed during the 4<sup>th</sup> of July, Labor Day or Thanksgiving holiday period as defined by the ENGINEER. The actual date that all roads shall be open and no traffic stoppages shall be made as directed by the ENGINEER.

### **Traffic Control Devices**

#### **General**

1. All traffic control devices and their usage shall conform to the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), current edition, as revised and as specified herein.
2. Signs and barricades, when required by the ENGINEER, are to be cleaned over the entire reflective surface. The CONTRACTOR is responsible for the operation, inspection maintenance (cleaning) repositioning and removal of the devices.
3. During non-working periods, any site work with uncompleted work shall have advance signs, W20-1a ("ROAD WORK AHEAD"), and lighted Type II Barricades (plastic drums) at specific locations as directed by the ENGINEER.

4. All warnings signs shall be 48" x 48", unless otherwise noted in the plans or special provisions and must be mounted at a seven-foot (7') minimum bottom height.
5. If any existing road signs need to be removed for construction, the CONTRACTOR is responsible for salvaging and reinstalling the signs, including the posts and all necessary hardware required to perform the proper reinstallation.

#### Channelizing Devices

1. Channelizing devices required for all lane closures shall be Type II Lighted Barricades (plastic drums). Cones shall not be used for a lane closure.
2. When utilized, Type II Barricades shall be placed at 30-foot intervals along transition tapers and at 60-foot intervals along work areas or as directed by the ENGINEER.

#### Road Closures

The CONTRACTOR shall notify the ENGINEER a minimum of 72 business hours prior to the implementation of any detours or road closures.

The CONTRACTOR shall maintain closure notifications to the City Police and Fire Departments at all times during the project.

The Contractor shall periodically inspect and maintain all temporary traffic control devices at his expense.

#### Maintaining Traffic Notes

Botsford Street and Trowbridge Street are one-way streets both with westbound traffic. The CONTRACTOR shall maintain traffic as much as possible throughout the duration of the project.

The CONTRACTOR must complete Concrete Base Repairs in phases to allow residents to park at designated locations throughout the project.

The CONTRACTOR must provide a Traffic Maintenance and Control Plan for approval by the ENGINEER prior to start of construction.

# SPECIFICATIONS FOR EARTHWORK

## **Description**

The work under this section includes, but is not necessarily limited to, the following items:

1. Excavating
2. Filling and backfilling
3. Trenching
4. Rough and finish grading
5. Removal of trees and stumps

## **Job Conditions**

### **Dust Control**

1. Use all means necessary to control dust on and near the work and on and near all off-site borrow areas if such dust is caused by the CONTRACTOR's operations during performance of the work or if resulting from the condition in which the CONTRACTOR leaves the site.
2. Thoroughly moisten or otherwise treat all surfaces as required to prevent dust being a nuisance to the public, neighbors and concurrent performance of other work on the site. If the ENGINEER determines that chloride shall be used to control dust, the CONTRACTOR shall comply at no additional cost.
3. Roadways and/or sidewalks adjacent to the work shall be swept a minimum of once each working day.
4. Failure to comply with the above dust control measures may cause suspension of work until the CONTRACTOR has all dust on-site and off-site under control.

### **Protection**

1. The CONTRACTOR is solely responsible for using all means necessary to protect all materials before, during and after installation and to protect all objects designated to remain.
2. In the event of damage, the CONTRACTOR shall immediately make all repairs and replacements necessary to the approval of the ENGINEER and at no additional cost to the OWNER.

### **Public Utilities and Underground Structures**

1. All public utilities and underground structures encountered during this work shall be adequately supported and protected.
2. Before backfilling, public utilities and underground structures shall be permanently supported as approved by the ENGINEER and the OWNER of the public utility or underground structure.
3. Public utilities and underground structures damaged or disturbed during performance of the work shall be repaired or replaced in a manner equal to the original condition at no additional expense to the OWNER.
4. For public improvement projects, the existing public utilities and underground structures are shown on the drawings, insofar as information is reasonably available. The information shown is believed to be reasonably correct and complete, although neither the correctness, nor the completeness, of such information is guaranteed by the OWNER or ENGINEER.
5. CONTRACTORS shall comply with State Act 53, MISS DIG and notify MISS DIG three (3) working days, excluding weekends and holidays, prior to performing any excavating.

6. The relocation of any utility, not specifically called for on the plans, but required to perform the work, shall be the CONTRACTOR's responsibility and performed at no additional expense to the OWNER.

#### Disposal of Excavated Material

1. The CONTRACTOR is to properly remove and dispose of all excavated material not needed for the completion of the work. For public improvement projects, all required permits and their associated costs for filling dumping, disposing, etc., of excess material are the responsibility of the CONTRACTOR.
2. Any possible inconsistencies that may exist between the requirements included herein and the requirements of the «cntynam» Department of Public Works for work under their jurisdiction will be resolved by the ENGINEER at the time such inconsistency is identified.

### **PRODUCTS**

#### General

The type of material required for either bedding or backfill material is specified below. The locations where these are to be used are specified elsewhere and/or are shown on the plans.

#### Trench A: On Site Fill Material

1. "Trench A" is to be used in all trenches within or parallel and adjacent to the right-of-way, except where 21A crushed limestone (Trench B) is required.
2. "Trench A" shall be backfilled with suitable excavated material (excluding blue clay).

#### Trench B: 21A Crushed Limestone Backfill

1. "Trench B" shall be backfilled with 21A crushed limestone as defined in the current MDOT Standard Specification for Construction or other material approved by the ENGINEER.
2. "Trench B" shall be backfilled with 21A crushed limestone as defined in the current MDOT Standard Specification for Construction or other material approved by the ENGINEER.

#### Trench C: Isolated Road Cuts

1. "Trench C" shall be used in all trenches needed for isolated road cuts.
2. "Trench C" shall be backfilled with "K-Krete" or an approved equal flowable fill.

#### Aggregate

Aggregate used for road base, driveway base, shoulders, or other areas shown on the plans shall be 21A crushed limestone as defined in the current MDOT Standard Specifications for Construction or other material approved by the ENGINEER.

### Pipe Bedding Material

Pipe bedding material shall consist of 21A crushed limestone as defined in the current MDOT

Standard Specification for Construction unless otherwise shown on the plans.

### Other Materials.

All other materials not specifically described but required for the proper completion of the work in this section shall have prior approval of the ENGINEER.

## **EXECUTION**

### General

1. Familiarization: Prior to all work of this section, become thoroughly familiar with the site, site condition, and all portions of the work falling within this section.
2. Backfilling Prior to Approvals: Do not allow or cause any of the work performed or installed to be covered up or enclosed prior to all required inspections, tests and approvals. Should any of the work be so enclosed or covered up before it has been approved, uncover all such work at no additional cost. After the work has been completely inspected, tested and approved, make all repairs and replacements necessary to restore the work to the condition in which it was found at the time of uncovering, all at no additional cost to the OWNER.
3. Work Within Easements: Confine work to immediate area of pipe. Notify property OWNERS before moving equipment on easements and use access routes designated by the OWNER. Remove all stockpiled topsoil within easements and replace it after completion of work within the easement. Replace and remove trees, shrubs, bushes and lawns to the satisfaction of the property OWNER and ENGINEER.

### Compaction

1. All compaction shall meet the requirements of ASTM D2321 or as specified below. Ramping by bulldozer is not acceptable.
2. "Trench A" shall be compacted in one-foot (1') layers to 90 percent maximum unit weight (Modified Proctor).
3. "Trench B" shall be compacted in one-foot (1') layers to 95 percent maximum unit weights.

### Lines and Grades

1. For «ctytwnpvllg» projects, initial lines and grades shall be established by the ENGINEER and for private development projects this work shall be established by a licensed surveyor in the State of Michigan hired by the CONTRACTOR or OWNER.
2. On «ctytwnpvllg» projects, the CONTRACTOR is responsible for preserving all data, monuments and/or stakes installed by the ENGINEER.
3. On «ctytwnpvllg» projects, if any data, monuments and/or stakes are displaced, damaged, or lost, they shall be immediately replaced by the ENGINEER and the CONTRACTOR will be back charged for time and material required to complete the work.

### Obstructions

1. Remove and dispose of all stumps, roots, boulders, sidewalks, driveways, pavement, pipes and the like, as required for the performance of the work. Trees are to be removed only as a last resort and under direction of OWNER.
2. Exercise care in excavating around catch basins, inlets and manholes. Avoid removing or loosening castings or pushing soil into structures. Damaged or displaced castings shall be repaired and/or replaced, and all soil entering the structures during the performance of the work shall be removed at no additional cost to the OWNER.

### Excavating

1. General: Excavating includes the loosening, loading, removing, transporting and disposing of all materials of whatever nature encountered, including rock excavation; the furnishing and placing of earth supports, if required; and all necessary work for dewatering the excavation.
2. Excess Excavation: If excess excavation is made or the earth foundation becomes disturbed so as to require removal beyond the prescribed limits, the resulting space shall be refilled with materials and in a manner approved by the ENGINEER. If the area is under wall footings or similar locations, the ENGINEER may require the area to be filled with concrete.
3. Depressions Resulting from Removal of Obstructions: Where depressions result from or have resulted from the removal of surface or subsurface obstructions, open the depression to equipment working width and remove all debris and soft material as directed by the ENGINEER.
4. Other Areas: Excavate to grades shown on the drawings. Where excavation grades are not shown on the drawings, excavate as required to accommodate the given installation.

### Trench Excavating

1. General: Perform all trenching per local, state and federal regulations required for the installation of items where the trenching is not specifically described in other sections of these specifications. All trench excavations, except where tunneling or boring is not indicated on the drawings, and where necessary to tunnel under tree roots and other obstructions, may be open cut from the surface. Continuously maintain all excavated trenches and backfill to finish grade all settlement that occurs within a period of 60 days of original backfilling.
2. Depth: Excavate as required to provide the elevations and depths of cover shown on the drawings.
3. Width: Refer to the «ctytwnpvllg» details.
  - PVC Pipes – minimum trench width = 1.5 x O.D. + 12" (for all installation depths)
  - HDPE Pipe – used for storm sewer detention only. Minimum trench width = 3 x O.D. (for installation depths below 10') (O.D. = outside diameter)
  - Concrete Pipe: Refer to the «ctytwnpvllg» Storm Standard Details.
  - Ductile Iron Pipe: Refer to the «ctytwnpvllg» Watermain Standard Details.
4. Excess Excavation: Where trench excavation is carried below proper elevation and where depressions are created by removal of foreign materials, such as wood and boulders, the trench shall be brought to the proper elevation by placing and compacting to 95 percent, MDOT 21A crushed limestone or other materials as approved by the ENGINEER.

5. Trench Sheet piling and Bracing: Properly support all ditches in locations indicated on the drawings and where necessary to conform to all pertinent local, state and federal rules and regulations and these specifications, even though such locations are not shown on the drawings. Brace, sheet and support trench walls in such a manner that they will be safe and that the ground alongside the excavation will not slide or settle and that all existing improvements of every kind whether on public or private property will be fully protected from damage. In the event of damage to such improvements, immediately make all repairs and replacements necessary to the satisfaction of the ENGINEER and at no additional cost to the OWNER. Arrange all bracing, sheet piling, and shoring in order to not place stress on any portion of the completed work until the general construction thereof has proceeded far enough to provide sufficient strength.
6. Removal of Trench Sheet piling and Bracing: Exercise care in the drawing and removal of sheet piling, shoring, bracing, and timbering to prevent collapse of the excavation faces being supported and damaging the work installed. Do not leave any sheet piling or bracing in the trench after completion of the work unless approved by the ENGINEER.

#### Pipe Bedding

1. General: Place bedding material in the trench simultaneously on each side of the pipe for the full width of the trench to a minimum depth of one foot (1') above the outside diameter of the pipe barrel unless otherwise shown on the drawings.
2. Compaction: All compaction shall meet the requirements of ASTM D2321 or as specified below. Compact the bedding material with mechanical tampers after placing. Take special care to provide firm bearing support on the underside of the pipe and fittings or the full length of the pipe.

#### Excess Water Control

1. Unfavorable Weather: Do not place, spread or roll any fill material during unfavorable weather conditions. Do not resume operations until moisture content and fill density are satisfactory to the ENGINEER.
2. Flooding: Provide berms or channels to prevent flooding of subgrade. Promptly remove all water collecting in depressions.
3. Softened Subgrade: Where soil has been softened or eroded by flooding or placement during unfavorable weather, remove all damaged areas and recompact as specified for fill compaction.
4. Pumping and Drainage: Provide, maintain and use at all times during construction adequate means and devices to promptly remove and dispose of all water from every source entering the excavations or other parts of the work. Dewater by means, which will ensure dry excavations, preserve final lines and grades and not disturb or displace adjacent soil. All pumping and drainage shall be done with no damage to property or structures and without interference with the rights of the public, OWNERS or private property, pedestrians, vehicular traffic, or the work of other CONTRACTORS. Do not overload or obstruct existing drainage facilities.

#### Repairs and Replacements

1. Ditches: Where work under these Specifications is performed near ditches and an existing ditch is filled or disturbed, clean, repair and/or replace the ditch with properly pitched bottom and side slopes and of a section and capacity equal to the original section.

2. Head Walls and Culverts: Where head wall, culverts or other structures are present and it is necessary for their removal during this work or they have been disturbed or filled during this work, shall be re-laid at a proper grade or rebuilt to a condition equal to the original state.

#### Grading and Clean Up

1. After backfill has been completed, the site shall be rough-graded to either those elevations show on the plans or to original conditions.
2. Rough Grading shall follow as close behind backfilling and compaction as possible. In no case shall rough grading fall behind by more than 200 feet.
3. Use all means necessary to prevent the erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.
4. Upon completion of all excavation/earthwork, the CONTRACTOR shall be responsible for removal of all rubbish, trash, debris, and spoil piles resulting from construction operations and leave the site in a neat and orderly condition acceptable to the ENGINEER.

#### Restoration

1. All work required to restore the site shall be in accordance with the «ctywnpvllg» Standard Specifications for Restoration.

## **SPECIFICATIONS FOR GRADING**

#### Description

The work shall be in accordance with Division 2, Section 205 of the 2020 MDOT Standard Specifications, except as herein specified.

1. The CONTRACTOR is responsible to perform all earthwork (excavation, road embankment, grading) required to obtain the proper elevation of the subgrade in order to install the proposed concrete pavement to the required depth and aggregate base course [six inches (6") minimum].
2. The CONTRACTOR is responsible to perform all earthwork (excavation, embankment, grading) required to obtain the proper elevation and slope of the proposed storm sewer and roadway.
3. All existing base material must be disposed of by the CONTRACTOR.
4. The CONTRACTOR shall use 21AA Crushed Limestone as specified in the Specifications for "Aggregate Base Course (CIP)." This material must be approved by the ENGINEER prior to installation.
5. Prior to installing the aggregate base course, the existing subgrade, including any road embankment or subgrade undercutting, must be fine-graded and compacted to not less than 95 percent of maximum unit weight as approved by the ENGINEER. The CONTRACTOR is responsible for the final adjustment of all utility structures affected by the "Station Grading" process.

## **SPECIFICATIONS FOR REMOVING PAVEMENT**

### **Description**

This work shall be in accordance with Division 2, Section 204 of the 2020 MDOT Standard Specifications, except as herein specified & include the complete removal of existing pavement, including concrete pavement, asphalt pavement, asphalt cap, reinforcement and integral curb, as called for in the plans.

Existing base material shall be removed to the required depth to provide for proposed cross section and be included as part of pavement removal.

All pavements removed shall be sawcut to full depth. If pavements are removed and identified as not sawcut to full depth, CONTRACTOR shall re-cut to full depth at his expense.

Any damage to existing pavements to remain must be completely removed and replaced at the Contractor's expense.

All material removed shall be disposed of at an offsite location unless specified on the drawings.

## **SPECIFICATIONS FOR MISCELLANEOUS REMOVALS**

### **Description**

This work shall be in accordance with Division 8, Section 810 of the 2020 MDOT Standard Specifications except as herein specified.

1. The CONTRACTOR shall remove all miscellaneous structures as shown on the plans as directed by the ENGINEER and salvage items to the Owner or City DPW.
2. The CONTRACTOR shall reinstate said traffic signs at the completion of the job as directed by the ENGINEER.
3. Posts or signs damaged by the CONTRACTOR shall be replaced at the CONTRACTOR'S expense.
4. The CONTRACTOR shall remove fence and replace as directed on plans or by Engineer. Note that fence replacement will only be required to facilitate construction and must be approved by the ENGINEER.

## **SPECIFICATIONS FOR REMOVE EXISTING TREES AND LANDSCAPING**

### **Description:**

This work shall be in accordance with Division 2, Section 202 of the 2020 MDOT Standard Specifications, except as herein specified.

This item shall include the complete removal of existing trees, bushes and hedges, six (6) inches in diameter of greater as called for on the plans. Removal shall include the complete removal of stump and associated root ball. Trees removed shall be disposed of immediately at an off-site location designated by the CONTRACTOR. Tree removal shall be conducted carefully so not to cause damage to adjacent properties or items such as pavements, sidewalks and landscaped areas within the ROW. Any damage caused by tree removal shall be repaired and paid for by the CONTRACTOR.

## **SPECIFICATIONS FOR STORM SEWERS**

### **Description**

This work shall include, but is not necessarily limited to, the furnishing and installation of all storm sewers, wyes, house leads and connections as indicated on the plans and as necessary for the proper and complete performance of the work.

Any possible inconsistencies that may exist between the requirements included herein and the requirements of MDOT 2020 Standard Specifications for Construction will be resolved by the ENGINEER at the time such inconsistency is identified.

1. The contract unit price per linear foot for installing storm sewers shall include excavation and backfilling as shown in the plans.
2. All sewer joints shall be sealed with flexible watertight rubber O-ring gaskets. The CONTRACTOR shall connect to existing storm sewers as shown on the plans.
3. The CONTRACTOR is responsible for placement of any temporary pavement will be installed will be determined by the ENGINEER.
4. When storm sewer is being used for a roadway culvert, the CONTRACTOR shall install flared-end sections as called for in the plans.

### **Definition**

1. A public storm sewer is defined as any storm sewer where there are two (2) or more connections to that sewer.
2. Building Taps and Service Leads: A separate building tap and service lead shall be provided at each building tap and service lead shall be provided at each building or dwelling.
3. Submittals: Submit all shop drawings, product data and samples as determined by the ENGINEER.

### **Materials**

#### Sewer Pipe

1. Poly Vinyl Chloride PVC Pipe — PVC pipe in size six inches (6") but less than 12 inches shall be, at a minimum, ASTM D-3034 SDR-26 or as approved by the ENGINEER. All PVC pipe 12 inches and greater shall be seamless with a corrugated annular exterior and smooth interior with an integral bell-gasketed (AASHTO) soil tight joint. The PVC pipe and fittings shall be

manufactured and tested in accordance with ASTM F-949. The Manning's "n" value for use in design shall be 0.009. PVC pipe material shall be 12454 cell class material per ASTM D 1784. Pipe and fittings shall have a minimum pipe stiffness of 46 lbs./in./in. when tested in accordance with ASTM D 2412.ASTM F-949.

2. Reinforced Concrete Pipe — For depths to 23 feet, concrete pipe shall be reinforced concrete pipe, Class IV, and shall conform to the requirements of ASTM C-76, and be of the modified tongue and groove type. For depths 23 feet to 33 feet, RCP Class V shall be utilized. For depths greater than 33 feet a special design will be required and must be submitted to the ENGINEER for approval. Compression-type O-ring rubber gaskets shall be used in the joints and shall conform to ASTM C-443. Only lubricant as supplied by the pipe manufacturer shall be used. Joints for all storm sewer 30 inches and larger shall be inside cement pointed.
3. High Density Polyethylene (HDPE) Pipe — HDPE pipe 12 inches to sixty inches shall be dual wall with a corrugated annular exterior and smooth interior with a bell and spigot joint meeting the requirements of ASTM F 2648 and a rubber gasket meeting ASTM F 477. All fittings shall meet ASTM F 2306. The Manning's "n" value for design shall be 0.012. The material shall consist of virgin and recycled high density polyethylene meeting the requirements of 435420C (ECSR Test Condition B) of ASTM D 3350 with the exception that carbon black content shall not exceed 4 percent.
4. Drainage Structures — All work associated with installing Drainage Structures shall be in accordance with the City Standard Specifications for Drainage Structures.

#### ***Construction Methods***

1. Push-On Joints — Joints shall be made by means of a compression-type push-on resilient gasket. Gasket shall be prelubricated before installation using a lubricant recommended by the pipe manufacturer. The seated joint shall be identified by the visible mark on the spigot of the installed pipe section. When the temperature is above 60 degrees Fahrenheit, the spigot end of each pipe shall be forced tightly on the bell of the preceding pipe. When the temperature is below 60 degrees Fahrenheit, the pipe shall be laid with the spigot end one-sixteenths inch (1/16") from the face of the bell for expansion.

#### ***Surface Conditions***

#### ***Inspection***

1. Verify that all work under this section may be installed in accordance with all pertinent codes and regulations, the original design, and the referenced standards.
2. All materials shall be inspected immediately before installation and, if found defective, marked "Rejected" and removed from the site.

#### ***Discrepancies***

1. In the event of discrepancy, immediately notify the ENGINEER.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

#### ***Earthwork***

All earthwork required for the performance of the work of this section shall be done in accordance with the City Standard Specification for Earthwork.

***Installation***

Install all pipe and fittings in strict accordance with the manufacturer's recommendations as approved by the ENGINEER.

***Handling***

1. Pipe and materials shall be distributed at the site as required and care shall be exercised to prevent injury to the pipe and materials during handling.
2. Provide and use proper tools and implements as approved by the ENGINEER for safety handling the pipe and other materials.
3. Protect the pipe and other materials from falling to the ground or into the trench.
4. Keep distributed pipe and materials clear from danger or damage to passing vehicles.

***Laying Pipe***

1. Lay all pipe true to line and grade with pipe ends abutting each other and the bell end facing the direction of laying.
2. Use laser alignment equipment to establish and maintain proper line and grade.
3. Correct any deviation from line and grade at no additional cost to the OWNER.

***Miscellaneous Items***

1. All miscellaneous items not specifically mentioned shall be installed as per standard practice or manufacturer's recommendations, whichever are more stringent.
2. Relocation of any utility not specifically called for on the plans but required to properly perform the work shall be the CONTRACTOR's responsibility and shall be relocated at no additional expense to the OWNER.
3. Wherever existing manholes or sewer pipes are to be tapped, core the manhole with a coring machine and install a rubber boot with stainless steel bands. Use Kor-N-Seal with Korband external contraction bands or approved equal.
4. Any dewatering necessary to install the proposed storm sewer shall not be paid for separately but shall be included in the cost of the storm sewer. This shall include costs associated with delays, pumping and manpower necessary to complete the dewatering.

# SPECIFICATIONS FOR DRAINAGE STRUCTURES

## Description

This work shall be in accordance with Division 4, Section 403 of the 2020 MDOT Standard

Specifications, except as herein specified.

1. As part of the removal operation, the CONTRACTOR shall remove and replace the first section of sewer pipe from the structure to the first pipe joint.
2. All new drainage structures shall have precast sections unless otherwise approved by the ENGINEER.
3. The CONTRACTOR shall follow the construction details of the structures and backfilling requirements as shown on the City of Garden City Standard Details except as stated herein.
4. Backfilling around structures shall not begin any sooner than 12 hours after the structure has been completed, except precast structures that may be backfilled immediately. In all cases, structures shall be approved by the ENGINEER prior to backfilling. The backfill material shall be deposited evenly around the structures as described in this Specification. The backfill material shall be MDOT Class II granular material.
5. Structure excavations under road surfaces, pavement, shoulders, sidewalk, curb, driveways and where the edge of the excavation is within three feet (3') of the pavement shall be compacted to 95 percent of Maximum Unit Weight.
6. The CONTRACTOR is responsible for connecting any existing sewer or proposed sewer to the new pipe, of similar material, to the existing pipe and installing the new section into the structure in accordance with the City of Garden City Storm Sewer Standard Details, STM-1. The connection of the new section of pipe to the existing pipe must be approved by the ENGINEER prior to the backfilling above the connection.
7. All other structure excavations shall be backfilled as above, except that the 21AA crushed concrete shall be placed a minimum of five feet (5') from the outside wall of all structures and shall be carried to within one-and-one half feet (1½') of finished grade. The remaining one-and-one half feet (1½') of backfill shall be suitable excavated material as approved by the ENGINEER.
8. The CONTRACTOR shall install an edge drain, as illustrated by the standard plan STM-1, at each catch basin or inlet structure.
9. The CONTRACTOR is responsible for placement of any temporary pavement to maintain traffic flow after the installation of the sewer. The actual areas where the temporary pavement will be installed will be determined by the ENGINEER.
10. The City of Garden City will provide to the CONTRACTOR storm structure frames and covers. It will be the responsibility of the CONTRACTOR to provide all adjustments for the structures along with all labor, and equipment to complete the work.

## **SPECIFICATIONS FOR DRAINAGE STRUCTURE TAP**

**Description:**

This work shall be in accordance with Division 4, Section 403 of the 2020 MDOT Standard Specifications, except as herein specified.

This item shall include the complete installation of a drainage structure tap to an existing drainage structure as shown on the construction plans. All sawcutting of an existing drainage structure shall be cut neatly and straight as possible and the area cut shall be as minimal as possible to allow for proposed pipe inlet into structure. Voids around proposed pipe shall be filled with brick and mortar. Proposed pipe shall not extend more than one foot (1') into the existing drainage structure.

# SPECIFICATIONS FOR AGGREGATE

## Description

This work shall be in accordance with Division 3, Section 302 of the 2020 MDOT Standard Specifications, except as herein specified.

1. Removal of Existing Pavement on Aggregate Base: The CONTRACTOR is responsible for the removal of existing pavement, and existing aggregate base to the depth required to provide for the proposed cross section. Additional base material shall be placed where there are areas of deficiency, as directed by the ENGINEER.
2. Removal of Existing Pavement on Clay Subgrade: The CONTRACTOR is responsible for the removal of existing pavement and the clay subgrade to the minimum depth call out in the plans in order to place aggregate base material, as directed by the ENGINEER. The CONTRACTOR must proof roll the clay subgrade prior to placement of the base.
3. New pavement and shoulders: The CONTRACTOR shall be responsible for excavation to the bottom elevation of the aggregate base, proof rolling of the clay subgrade, and installation of the aggregate base per the plans and as directed by the ENGINEER.
4. The CONTRACTOR shall be responsible to haul away all of the spoils, including loading, trucking and disposal generated from installation of the base to an offsite location designated by the CONTRACTOR.

## Materials

The material shall be 21AA crushed aggregate, except as revised below, and shall conform to the grading and physical requirements of Division 9, Section 902 of the 2020 MDOT Standard Specifications (Note: 21AA slag shall be blast furnace slag only).

21AA crushed limestone shall conform to the following grading and physical requirements:

% Passing 1/2" Sieve .....	100
% Passing 1" Sieve .....	85-100
% Passing 1/2" Sieve .....	50-75
% Passing No. 8 Sieve .....	20-45
% Loss by Washing .....	3-8*
Wear by Los Angeles Abrasion	
% Loss, Max .....	45
Crushed Material, % Min .....	25

\*When the material is produced entirely by crushing rock, boulders, pebbles or slag, the maximum limit for loss by washing will be increased to 10 percent.

# SPECIFICATIONS FOR CONCRETE PAVEMENT

3-19-19

## Description

This work shall be as specified in Division 6, Section 601 and 602 of the MDOT 2020 Standard Specifications for Construction, except as herein specified.

## Mix Designs

Design concrete mixtures must meet the requirements specified in Table 601-2 of the MDOT Standard Specifications for Construction. A variance can be requested in writing and must be approved by the ENGINEER when proposing a mix design that exhibits temperature, slump or air content other than those specified. Do not use a grade of concrete with a minimum specified 28 day compressive strength greater than what is designated for in the application.

The mix shall have an entrained air content of 5.5% to 8.5%, a maximum slump of three (3) inches which can be increased to six (6) inches with a MDOT approved mid-range water reducer and have a minimum 28 day compressive strength of 4000 psi unless otherwise specified.

Mix designs must be submitted to the ENGINEER for review and approval 10 working days before the anticipated date of placement. Mix designs submitted that do not include all of the required documentation will be considered incomplete and returned without review.

## Materials:

1. **The 6AA coarse aggregate shall have a freeze thaw dilation less than 0.040 % per 100 cycles and have a maximum absorption of 2.0%.** It will be the responsibility of the Contractor to provide to the Engineer a copy of all delivery tickets of the 6AA coarse aggregate used by the concrete supplier for each day of concrete placement within 48 hours of the concrete placement. **In the event the concrete supplier can not provide the shipping tickets that indicate the 6AA coarse aggregate used for a particular placement came from the source approved in the concrete mix design to the Engineer's satisfaction, the Engineer will reduce payment of the contract unit price for the contract item by 30%.**
2. The maximum slump for P1 and P2 concrete is 3 inches unless as otherwise allowed in the approved mix design. The slump can be increased to a maximum of 6" with the addition of a Mid-Range (MR) water reducer listed in the MDOT Quality Assurance Manual at a dosage rate prescribed therein.
3. The maximum water/cementitious materials ratio must not exceed 0.45. Cementitious materials is defined as the combined weight of all cementitious materials such as cement or ground granulated blast furnace slag (GGBFS).
4. **The concrete mix shall contain 30 - 35% replacement of the Portland cement with GGBFS (Grade 100 minimum).** A blended cement meeting the requirements of ASTM C 595 containing Portland cement and slag cement (30-35%) may also be used.
  - 4a. Documentation must be provided for each concrete mix design submitted that the GGBFS is able to control the effects of Alkali Silica Reactivity (ASR). Submit ASTM C 1567 test data using the mix proportions and constituent sources for both the aggregates and the cementitious materials that will be used for the project. The test data should show at least (3) test specimens (mortar bars) for each cementitious

materials aggregate combination. If the average of 3 mortar bars for a given cementitious materials aggregate combination produces an expansion less than 0.10 % (rounded to the nearest 0.01%) at 14 days of immersion, the submitted mix design is considered to be non-deleterious to ASR. If the average expansion is 0.10% (rounded to the nearest 0.01%) or greater, the submitted mix design will be considered insufficient to mitigate ASR and will be rejected.

- 4b. In lieu of ASTM C 1567, test data from ASTM C 1260 or ASTM C 1293 is acceptable. If the data from the ASTM C 1260 test shows the mortar bars to have expanded less than 0.10% (rounded to the nearest 0.01%) at 14 days of immersion the concrete mix will be considered to be non-deleterious to ASR. If the test data ASTM C 1293 test shows the expansion of the concrete prisms is not greater than 0.040% (rounded to the nearest 0.001) after 1 year, the concrete mix will be considered non-deleterious to ASR.
5. **Between November 1<sup>st</sup> and April 1<sup>st</sup> the concrete mixture(s) must utilize a non-chloride accelerator listed in the MDOT Quality Assurance Manual at a dosage rate prescribed therein.**
6. **Unless otherwise directed by the Engineer, the air content shall be 5.5% to 8.5%.** Tests for air content will be completed from samples taken at the point of discharge, at the outlet hose or before the paving machine.

When directed by the Engineer, an air test will be taken from a sample obtained from concrete that has just passed through the paving machine and has not been finished. If the concrete sampled from behind the paver, when tested, fails to contain a minimum air content of 5.0%, or indicates an air content exceeding 8.5%, paving shall cease. It will be the Contractor's responsibility to make those changes necessary to the concrete such that a minimum of 5.0% and no more than a maximum of 8.5% air content is present in the concrete after having passed through the paver. Paving shall only be allowed to continue after the Contractor has taken sufficient corrective action and the follow up test for air content after (or behind) the paver indicates a minimum air content of 5.0% and no more than 8.5%.

### **Construction Methods**

1. Provide an automated printout of target, actual batch weights and material sources with each delivery ticket. If target, batch weight and material source(s) information is computer generated on a separate document, include the serial number of the corresponding delivery ticket or other means of cross reference. Attach the automated printout of target, actual batch weights and material sources to the corresponding delivery ticket. A copy of the concrete batch/delivery ticket(s) will be provided to the inspector upon delivery. **Concrete delivered to the project without the target, material source and batch weight information on each delivery ticket as described previously will be rejected and not allowed to be placed.**
2. Add water to concrete transported in truck mixers only if additional mixing water is needed for the concrete to achieve the slump specified in the approved mix design. Do not add more water than specified in the approved mix design, based on the maximum water content and maximum water to cementitious material ratio. After adding water provide at least 30 revolutions of the truck mixer drum at mixing speed before discharging concrete. Document on the delivery ticket the amount of additional water added. Do not add water to the

- concrete during discharge or placement. DO not add water in truck chutes or pump or slipform hopper beyond the minimum necessary to wet the surfaces for lubrication.
3. The CONTRACTOR shall designate, with the approval of the ENGINEER, an area that can be utilized to clean the chutes of the concrete delivery trucks. Cleaning of the chutes into the pavement grade is forbidden.

#### Curing

Curing shall be in accordance with Division 6, Section 602 of the 2020 MDOT Standard Specifications for Construction, except that for textured surfaces, there shall be one application of curing compound at the rate of one (1) gallon per 150 square feet. **Application of the curing compound will begin as soon as the free water leaves the surface of the pavement.**

#### Integral Curb

1. Integral curbs shall be constructed monolithically with the pavement slab.
2. The curb material shall be placed before the pavement has started its initial set, and shall be of the same mix and shall conform, in all respects, to the requirements for concrete in the pavement.
3. For nonslip-form paving, immediately following the final floating of the pavement, the area where the curb material is to be placed shall be roughened so as to secure a good bond between the pavement and the curb.
4. For nonslip-form paving, face and back forms will be required when constructing curb.
5. The curb shall be spaded sufficiently to eliminate all voids, and tamped to bring the mortar to the surface.
6. Immediately after the removal of the forms, any visible areas of honeycomb or minor defects shall be filled with mortar, composed of one (1) part Portland cement and two (2) parts of fine aggregate from the same source as used in the pavement, applied with a wooden float.
7. Immediate steps shall be taken by the CONTRACTOR to correct the conditions contributing to these defects.

#### Slip-Form Paving

1. The slip-form paving equipment shall have automatic horizontal and vertical controls.
2. If the CONTRACTOR cannot maintain the required horizontal and vertical controls using his selected method, the use of slip-form methods shall be discontinued and the pavement shall be placed by means of fixed forms.

#### Sectioning (Hand Work)

1. Any full depth pavement removal and replacement over 150' in length shall use a paving apparatus (mechanical means) to place, strike off and finish the concrete. The paving apparatus shall have vibrators of the internal type attached to the apparatus capable of affecting the concrete approximately 12" from the vibrator head. The vibrators shall start and stop with the movement of the paving apparatus.
2. Vibratory screeds or rollers may be used if APPROVED in advance by the ENGINEER. The CONTRACTOR is still responsible to provide internal vibration if a vibratory screed or roller is used. Internal vibration utilizes a hand held portable immersion type device with a head diameter of 2-1/2" to 3" and a recommended frequency of 8,000 to 12,000 vibrations per minute (vpm). The vibrator shall be lowered vertically into the concrete at regularly spaced intervals. Dragging of the portable vibrator is not allowed.

3. Concrete pavement in areas less than 150' in length that is placed, screeded and finished by manual methods (hand work) shall use an internal vibrator as described in item 2. The CONTRACTOR shall demonstrate to the ENGINEER prior to the placement of any concrete the presence of and operational ability of a portable internal immersion type vibrator(s).

#### Paving Joints

1. Joints in the concrete pavement shall be placed as required in Division 6, Section 602 of the 2020 MDOT Standard Specifications for Construction and shall conform to the current MDOT Standard Plans and positions shown on the plans.
2. Expansion joints with load transfer shall be placed at spring points, at locations shown on the on the plans, and at locations indicated as follows:
  - A. Where necessary to relieve horizontal pressure at sharp vertical curves, expansion joints shall also be placed as shown on the plans or where directed by the Engineer.
  - B. Expansion joints shall be placed at the P.C. and P.T. or horizontal curves where the degree of curvature is 2°30' or more.
  - C. During the period of September 15<sup>th</sup> to April 15<sup>th</sup>, expansion joints shall be spaced at maximum intervals of 324 feet. On curves, expansion joints need not necessarily be placed at the P.C. or P.T. of curve. If any portion of a multiple lane pavement is to be placed between September 15<sup>th</sup> and April 1<sup>st</sup>, expansion joints for the entire width of the pavement shall be spaced at maximum intervals of 324 feet.
3. The edges of all transverse joints in the integral curb shall be rounded with an approved finishing tool have a radius of one-quarter inch (1/4") or mats shall be lapped approximately 12 inches, and the pavement reinforcement shall stop (6") from all expansion or contraction joints.
4. End-of-pour joints shall be placed at the location of the full-width pavement and the start of non-reinforced concrete temporary transition tapers as shown on the plans and elsewhere as directed by the ENGINEER.
5. External Longitudinal Pavement Joints shall be placed as shown on the plans.

#### Paving Requirements

1. **The CONTRACTOR is to use a paving apparatus (mechanical means) that can pave the proposed total road width at one time and shall have vibratory and screeding capabilities. The paving apparatus (mechanical means) will be approved by the ENGINEER prior to the start of paving. With prior approval from the ENGINEER, the CONTRACTOR may be able to pave half width at a time. If the CONTRACTOR can provide reasonable evidence and schedule that the roadway will be completed on time. Paving the road 1/3 at a time will not be acceptable.**
  1. Slip-form paving equipment shall have automatic horizontal and vertical controls.
  2. If the CONTRACTOR cannot maintain the required horizontal and vertical controls using his selected method, the use of slip-form methods shall be discontinued and the pavement shall be placed by means of fixed forms.
  3. The CONTRACTOR shall demonstrate to the ENGINEER prior to the commencement of the paving operation the presence of and operation of a portable hand held immersion type vibrator(s).

Concrete Mixtures Subject to Rejection or Penalty

Air Content:

During the course of the paving or placement operation, an air test(s) will be completed for acceptance from the concrete at the point of discharge and at a frequency designated by the Engineer. If the concrete air test fails to meet the specified air content required (5.5% to 8.5%), the concrete plant operator will be immediately notified to make a correction. The 1<sup>st</sup> air test will be considered the initial air test and the location and volume of concrete it represents will be noted. The next air test will be taken on the concrete sample which represents the corrected concrete and will be called the corrected air test. If the corrected air test meets contract specifications, the concrete will continue to be placed. If the corrected air test fails to meet contract specifications, the concrete placement operation will be halted until a correction can be made at the concrete production plant to bring the air content within specification. The nonconforming concrete which is placed between the initial air test and the succeeding corrected air test will be removed, if in the opinion of the Engineer the concrete warrants removal. The removed concrete will be replaced by concrete meeting contract specifications at the Contractor’s expense. If in the opinion of the Engineer the concrete can remain in place, the contract unit price for the contract pay item will be reduced in accordance with the following schedule (this reduction is in addition to any other reductions):

<u>Average of Initial and Corrected Air Test:</u>	<u>Reduction</u>
5.0% to 5.4% .....	10%
4.6% to 4.9% .....	20%
4.2% to 4.5% .....	30%
4.0% to 5.0% .....	50%
<b>3.9% and Below .....</b>	<b>REMOVAL</b>
8.6% to 8.9% .....	15%
9.0% to 9.3% .....	30%
9.4% to 9.5% .....	50%
<b>9.6% and Above .....</b>	<b>REMOVAL</b>

Compressive Strength:

When the compressive strength test specimens representing a particular section of concrete fail to meet the required 28 day compressive strength requirement, the Contractor shall remove and replace the concrete at no cost to the owner. If the Engineer determines the concrete can remain in place , the contract unit price for the contract pay item will be reduced as follows:

RCS = Required 28 Day Compressive Strength per contract specification

ACS = Actual 28 Day Compressive Strength determined from strength specimens from particular pour

<u>Adjustment Unit Price (% Reduction)</u>	<u>Actual 28 Day Compressive Strength Test Results (ACS)</u>
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2.0 X  $\frac{RCS - ACS}{RCS}$  X Contract Unit Price ..... 1.0% 5.0% below the RCS

2.75 X  $\frac{RCS - ACS}{RCS}$  X Contract Unit Price .....5.1% to 10.0% below the RCS

3.5 X  $\frac{RCS - ACS}{RCS}$  X Contract Unit Price ..... 10.1% to 14.0% below the RCS

**Remove & Replace, or as directed by the Engineer ..... More than 14.0% below the RCS**

Coring:

Coring will be allowed, when approved by the Engineer to verify the required 28 day compressive strength. Instances requiring coring, other than for thickness, may include failure of a representative section of concrete to meet 86% of the required 28 day compressive strength or in the event that the compressive strength specimens are missing or had been damaged.

When the 28 day compressive strength test specimens fail to meet 86% of the required 28 day compressive strength required in the contract specification, the Engineer may require the particular section of concrete in question to be cored. If the compressive strength of the cores meet or exceed the 28 day compressive strength required in the contract specification, the representative section of concrete in question will be deemed to have met the contract requirements and will be paid at 100% of the contract unit price for that contract pay item. If the cores fail to meet the 28 day compressive strength required in the contract specification, the contract unit price for the contract pay item will be reduced for a particular section of concrete per the formulas described above for Compressive Strength. For cores that fail to meet 86% of the required 28-day strength as designated in the contract specification, the representative section of concrete will be removed and replaced at the expense of the contractor. All costs related to coring shall be paid for by the Contractor.

When compressive strength test specimens are lost or damaged while in the possession of the Engineer and coring is required to verify the 28 day compressive strength of a representative section of concrete, 100% of the contract unit price for the contract pay item for that particular section of concrete will be paid if the compressive strength of the cores meets or exceeds the 28 day compressive strength required in the contract specification. If the cores fail to meet the 28 day compressive strength required in the contract specification, the contract unit price for the contract pay item will be reduced for a particular section of concrete per the formulas described above for Compressive Strength. For cores that fail to meet 86% of the required 28 day strength as designated in the contract specification, the representative section of concrete will be removed and replaced at the expense of the contractor.

All coring shall be witnessed by the Engineer. The Engineer shall take possession of all cores and designate a laboratory to test the cores. The Contractor will pay for all costs associated to test the cores in the event the compressive strength specimens fail to meet contract requirements or the Contractor damages the compressive strength cylinders while field curing.

## **SPECIFICATIONS FOR ADJUSTING STRUCTURES**

### **Description**

This work shall be in accordance with Division 4, Section 403 of the 2020 MDOT Standard Specifications, except as herein specified.

1. This item shall include all structures, which are raised or lowered to a specified vertical height. This includes, but is not limited to, manholes, catch basins, inlets, gate wells and stop boxes.
2. If the plans call for providing new frame and covers, all existing frame and covers shall be picked up by the City Department of Public Services or as directed by the ENGINEER.
3. The work under this item shall provide for a change in elevation of up to 12 inches, measured vertically from the top of the masonry or concrete structure, and shall include repairs to the existing structure within this limit. If the structure needs additional repairs beyond the limit set forth, the CONTRACTOR must obtain approval from the ENGINEER prior to completing any additional repairs to the structure.
4. The CONTRACTOR is responsible to clear out all structures as directed by the ENGINEER, prior to completing any repairs or adjustment to the structure.
5. All catch basins, manholes, gate wells and inlets shall be kept thoroughly cleaned of silt, debris and foreign matter and shall be free from such accumulations at the time of final acceptance.
6. The CONTRACTOR is responsible for adjusting all structures within the project area to the final grade or as directed by the ENGINEER. This includes, but is not limited to, manholes, catch basins, inlets, gatewells and stop boxes.
7. Equipment will not be permitted to operate over adjusted structures any sooner than 24 hours after their completion, unless otherwise approved by the ENGINEER.

## SPECIFICATIONS FOR RESTORATION

**Description**

This special provision covers the requirements for Restoration for this project. This work shall consist of shaping all disturbed areas, placing topsoil, seed or sod, fertilizer, mulch blanket, anchoring mulch and as sown on plans and typical cross sections. Restoration shall be in accordance with Division 8, Sections 813 and 816 and Division 9, Section 917 of the 2020 MDOT Standard Specifications and as directed by the ENGINEER with the following exceptions and additions.

Any possible inconsistencies that may exist between the requirements included herein and the requirements of MDOT 2020 Standard Specifications for Construction will be resolved by the ENGINEER at the time such inconsistency is identified.

**Classification**

Seeding will be classified as Class A or Class B depending on the type of soil and the area to be seeded.

Class of Seeding	Intended Use (For the guidance of the user and not a part of these specifications)	Commercial Fertilizer (Lb/Acre)	Sowing	Seeds
			Mixture No.	Rate, Lb. Per Acre
A	Lawns, Boulevards, and Parks	1200 Lb. Chemical	1 or 2	80
B	General Seeding on Primary and Local Roads	1200 Lb. Chemical	3 or 4	50

**Seed Mixtures**

Seed mixtures shall be certified seed of the following purity, germination and proportions by weight, as specified in the following table:

SEEDS			MIXTURES			
Kind	Purity	Germination	Class A Seeding		Class B Seeding	
			No. 1	No. 2	No. 3	No. 4
Kentucky Blue Grass	85%	80%	80%	40%	50%	30%
Creeping Red Fescue	98%	90%		30%		30%
Red Top	96%	90%	20%	15%	10%	10%
Perennial Rye Grass	98%	90%		15%	40%	10%
Tall Fescues	98%	90%	When Specified			
Bent Grasses	98%	90%				
White Dutch Clover	98%	90%				
Alsike Clover	98%	90%				
Type of Soil			Heavy and Medium Soils	Light Soils	Heavy and Medium Soils	Light Soils
Intended Use (For the guidance of the user and not a part of these Specifications)			Lawns, Boulevards and Park Areas		Gen. Seeding on Primary & Local Roads	

\*Germination percentages may include a maximum tolerance of hard seed as follows:

- Alsike Clover..... 30% hard seed
- White Dutch Clover..... 15% hard seed

**Materials**

Seeding

1. The seeding mixture shall be Class A, Type 1 seeding for lawns, boulevards, and park areas.
2. All seed proposed to be used shall be furnished in durable cloth bags, tagged or labeled, showing the date of test and guarantee of analysis of purity and germination, and shall meet the requirements of these specifications.
3. Seed shall be the previous year’s crop, and in no case shall exceed one percent (1%) weed content. No seed will be accepted with date of the test of more than six (6) months prior to the date of sowing, and the City reserves the right to test, reject or approve all seed.

Topsoil

1. Topsoil furnished maybe visually inspected for organic contamination and cleanliness at the source by the ENGINEER prior to transport to the construction site.

2. Topsoil furnished shall not be contaminated and shall not be a mixture of natural underlying soils, subbase material or other materials. It shall consist of natural loam or clay loam humus-bearing soils adapted to the sustenance of plant life and such soils shall be neither excessively acid nor excessively alkaline.
3. Topsoil furnished shall come from sources furnished by the CONTRACTOR from off the project.
4. Topsoil furnished shall be spread to a depth of not less than three inches (3"), unless otherwise indicated on the plans.

#### Sodding

1. Sodding shall be Class A with densely rooted blue grass other approved perennial grass, free from noxious weeds and reasonably free from other weeds.
2. Sodding shall be not less than two inches (2") thick, cut in strips not less than 10 inches wide by 18 inches long.
3. The type of sodding shall match the existing lawn or as approved by the ENGINEER.

#### Fertilizer

1. Commercial fertilizer shall be used for seeding and shall consist of chemical fertilizers.
2. These shall be of standard approved brands and shall be delivered in bags not to exceed 100 pounds each.
3. The guaranteed analysis shall be shown on each bag.
4. Chemical fertilizer for grasses shall contain six percent (6%) available nitrogen, 12 percent available phosphoric acid, and 12 percent available potash unless otherwise specified. The nitrogen element shall be derived at least 10-20 percent from true organic materials (such as tobacco stems, cottonseed meal, sewage sludge or tankage), at least 20 percent from urea compounds and the balance from other nitrogen materials.

#### **Construction Methods**

##### Preparation of Earth Bed

1. The earth bed upon which the furnished topsoils are placed shall be at the required grade and properly trimmed.
2. Prior to placing the furnished topsoil, the earth bed shall be worked into a friable condition to a minimum depth of three inches (3") and all sprinkler heads or monument boxes must be adjusted or relocated.
3. Earth beds shall be harrowed with a disk, a spring tooth drag or a spike tooth drag just prior to laying any topsoil. The harrowing shall be done so that all soil impressions left by any equipment are horizontal across the face of the slope.
4. Any topsoil that has been placed on conditional earth bed shall be incorporated into the upper two inches of the earth bed.
5. Furnished topsoils shall not be worked when in a wet condition. Working wet soil destroys the soil structure and causes compaction that inhibits root growth.
6. The topsoils shall be spread on the prepared areas to a depth of not less than three inches (3"). After spreading, any large clods and lumps shall be pulverized and all stones and rocks more than two inches (2") in diameter, roots, litter or any foreign matter shall be raked up and disposed of by the CONTRACTOR off the site as described in Division 8, Section 816 of the 2020 MDOT Standard Specifications.
7. The topsoil surface shall be in reasonably close conformity to the lines, grades and cross sections shown on the plans.

8. Where called for on the plans, pea gravel is to be installed and compacted in place.

#### Sodding

1. The sod shall be moist, laid in a moist earth bed and within 24 hours after cutting and properly protected until placed.
2. Pitchforks shall not be used to handle the sod and dumping from vehicles will not be permitted.
3. The sod shall not be placed during a drought or during the period from July 1 to August 15.
4. The sod shall be kept moist by the CONTRACTOR for 30 days or until growth has been established.

#### Seeding

1. The actual sowing of seed shall be performed from the time the ground is workable in the spring until June 1 and between the dates of August 15 and October 1, except during periods of high winds. Sowing at any other time shall be by special authorization.
2. The seed mixture of the kind required shall be sown at the rate per acre specified above for the classes of seeding specified.
3. The seed shall be incorporated in the soil to a depth not to exceed one-quarter inch ( $\frac{1}{4}$ "), using a Brillion seeder or other suitable equipment.
4. Seeds shall not be sown through mulch.

#### Watering

1. Use a minimum of 27 gallons of water to establish each square yard of sod. Within eight hours after the sod has been placed, spray 6 gallons of water per square yard; apply 3.5 gallons per square yard five additional times at three to four day intervals. The engineer may require additional applications based on the season and weather conditions.
2. Use a minimum of 17.5 gallons of water to establish each square yard of seeded area. Water seeded areas at 3.5 gallons per square yard thereafter. Continue watering regularly so that seed/seedlings do not dry out.

## **SPECIFICATIONS FOR SPRINKLER REPAIRS**

**Description:**

This item shall include the replacement and/or repairs of sprinkler lines or sprinkler systems that may have been damaged during the course of construction.

It is understood that homeowners may have sprinkler systems within the ROW. Therefore, it is essential that the CONTRACTOR identify sprinkler systems that may exist to prevent damage during excavation.

If, however, sprinkler systems are damaged during construction, the CONTRACTOR must furnish parts and replace or repair damaged sprinkler systems to the same or better condition than what existed prior to construction. The cost of sprinkler system repairs will not be a separate pay item; however, will be incidental to the cost of construction.

## **SPECIFICATIONS FOR PROJECT CLEANUP**

**Description**

This work shall be as specified in Division 2, Section 209 of the 2020 MDOT Standard Specifications, except as herein specified.

Any item, which is not included as part of any other pay item, that is disturbed or damaged, as part of the construction operations, will have to be restored back to its original condition as directed by the ENGINEER. These items include, but are limited to, sprinkler systems and traffic signs.

## **SPECIFICATIONS FOR IDLED EQUIPMENT**

**Description**

This work shall be as specified as shown below.

1. No additional compensation will be given to the CONTRACTOR for not being prepared and having the correct materials on site.
2. It is the CONTRACTOR's responsibility to have all necessary fittings, restrained joints, bolts, adjustment rings, etc. in order to complete the job as shown on the plans.
3. In the unlikely event that the CONTRACTOR claims Idled Equipment the ENGINEER shall review the claim with the OWNER to determine if the claim is warranted.

# SPECIFICATIONS FOR UTILITY COORDINATION

**Description**

For protection of underground utilities, and in conformance with Public Act 53, the CONTRACTOR shall dial 1-800-482-7171 or 811, a minimum of three (3) working days, excluding Saturdays, Sundays and holidays prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the CONTRACTOR of the responsibility of notifying utility OWNERS who may not be a part of the “Miss Dig” alert system.

**Public Utilities**

The following public utilities have facilities located within the right-of-way:

DTE Energy (MichCon)	1-800-338-0178
DTE Energy	313-235-5632
Comcast	248-359-6582
AT&T	734-523-7797

The OWNERS of existing service facilities that are within grading or structure limits will move them to locations designated by the ENGINEER or will remove them entirely from the street right-of-way. OWNERS of public utilities will not be required by MDOT, Wayne County or the City to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the ENGINEER that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the CONTRACTOR’s operations.

No additional compensation will be paid to the CONTRACTOR for delays due to material shortages or other reasons beyond the control of MDOT, Wayne County or the City, or for delays on the construction due to the encountering of existing utilities that are, or are not, shown on the plans.

Work stoppages by employees of utility companies, which result in a delay of utility revisions on any portion of this project, may be considered the basis for a claim for an extension of time for completion, but will not be considered the basis for a claim for extra compensation or an adjustment in contract unit prices.

If any utility companies and/or governmental agencies require any fees for items such as plan review, inspection, permitting, testing, staking, etc., these fees shall be paid by the CONTRACTOR, shall be included in the unit prices of the contract, and at no additional cost to the City.

MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION  
FOR  
MODULAR BLOCK WALL

CFS:DMG

APPR:DBP:RWS:01-21-22

a. Description. This work consists of the design, manufacture, furnishing and installation of a gravity modular block wall as shown on the plans. This work includes preparing a leveling pad or base; erecting the wall; installing underdrain; and placing backfill for the wall. Complete this work in accordance with the standard specifications, details shown on the plans, the wall system manufacturer's recommended installation procedures and this special provision.

Furnish modular block units by one of the manufacturers listed below or an approved equal:

Redi-Rock Stone Strong System Recon Retaining Wall Systems 41 and 60 inch Series  
24 Series 45 to 84 inch Series

Modular block units must not use mass extenders.

Design the modular block walls in accordance with the AASHTO LRFD Bridge Design Specifications.

b. Submittals. Submit shop drawings and calculations prepared and stamped by a Professional Engineer licensed in the State of Michigan to the Engineer. Allow up to 3 weeks for review of the shop drawings. No work can begin on the gravity modular block wall prior to approval of the shop drawings. Shop drawings must include:

1. The modular wall layout, height and typical wall sections-
2. Construction details, including requirements for geotextile, backfill, underdrain and drainage aggregates.

Furnish the manufacturer's recommended installation procedure and a sample of color and texture to the Engineer for approval at the preconstruction meeting.

c. Materials. Furnish materials meeting the following sections of the standard specifications:

Drainage Aggregate - Open-Graded Aggregate 34R.....	.902
Leveling Pad Aggregate - Dense-Graded Aggregate 2 IAA.....	.902
.....	
Underdrain.....	.909
Non-Woven	
Geotextile	
Separator	
.....	
	.910

Flowable fill will be as approved by the Engineer.

Use modular wall and cap blocks in accordance with the following:

1. Ensure concrete meets Grade 4000 requirements in accordance with section 1004 of

CFS:DMG 01-21-22 the Standard Specifications for Construction and has 5.5 to 8.5 percent entrained air content.

2. Provide manufacturer's test data certification, in accordance with the Materials Quality Assurance Procedures Manual, documenting that the concrete materials meet Grade 4000 requirements.

3. Ensure the standard block units conform to the nominal dimensions as shown on the plans unless otherwise approved by the Engineer.

4. Provide modular block units with pattern similar to Redi-Rock Ledgestone R002-A085LDOI. The pattern and color must be coordinated with the simulated stone masonry and texturing placed on the abutments and return walls.

Protect blocks from damage, chipping and soiling during delivery, storage and installation. Store block units off the ground on pallets, wood platforms or other approved method. Do not use blocks with chips, cracks, voids, discoloration or other visible defects.

d. Construction. Erect the wall in accordance with the details shown on the plans, manufacturer's recommendations and the following:

1. Excavate to the line and grade shown on the plans, or as directed by the Engineer, for construction of the leveling pad, Prior to placing the leveling pad, the Engineer will determine the suitability of the in situ soil. Excavate unsuitable soils to the limits determined by the Engineer and backfill in accordance with section 206 of the Standard Specifications for Construction.

2. Construct leveling pad to the dimensions required by the modular block manufacturer. Compact leveling pad to at least 95 percent of the maximum unit weight to provide a level, firm surface on which to place the first course of blocks. If a flowable fill leveling pad is required, construct to the dimensions shown on plans. Ensure flowable fill is completely cured prior to placing the first course of blocks.

3. Place the first course of blocks in full contact with the prepared leveling pad and in accordance with the manufacturer's instructions. Construct each course to grade for the entire length of the wall. If any course deviates from the grade more than 1 inch per 10 feet, remove the entire course and reinstall. All costs associated with this removal and reinstallation will be at no cost to the contract.

4. Place the foundation underdrain as shown on the plans and in accordance with the standard specifications.

5. Place non-woven geotextile separator against the backside of wall and backfill behind the wall with drainage aggregate. In addition, place non-woven geotextile separator between drainage aggregate and structure backfill. Remove damaged geotextile caused by the Contractor's operation and replace at no cost to the contract. Place the drainage aggregate a minimum of 1 foot wide behind the back of wall and extending vertically to an elevation 4 inches below the top of wall. Fill voids between and within block units with drainage aggregate in accordance with manufacturer's recommendations.

e. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item.

CFS:DMG

01-21-22

# METHODS AND MEASUREMENT OF PAYMENT

## GENERAL

### A. PRICES AND MEASUREMENTS:

Payment for work under this contract will be based on a unit price or lump sum for work actually completed. Final measurements of the work will be made and recorded by the Engineer to determine the amount of work done and thereby determine the total cost. The method of applying the unit prices to measured quantities will be as herein specified. Payment will include the cost of all labor, tools, materials, and equipment necessary to do the work.

Several items may have been included in the bid form but may be deemed unnecessary during the construction process. These items have been included in order to establish a unit price in the event that the item of work is necessary. The Contractor should be aware that these items may increase, decrease, or be zero based on field conditions, or Owner direction. No alteration of unit price will be considered as a result of the reduction of any bid items.

### B. INCIDENTAL ITEMS:

Any items of work indicated as incidental or included shall be considered as part of the project work and shall be completed at no additional expense to the Owner. Incidental or included items shall include labor, materials, and equipment that may not be specifically listed in the Bid Form or in the drawings or specifications, but which are necessary to complete the work.

## MOBILIZATION

"Mobilization," as specified, shall not be paid for separately, but shall be included in the pay items of the contract. It shall include all labor, bringing in and setting up of equipment and preparation of the CONTRACTOR prior to start of construction.

The OWNER will not pay for any remobilization of the CONTRACTOR following the start-up of construction.

## AUDIO/VIDEO ROUTE SURVEY

"Audio/Video Route Survey," as herein specified, will be paid for with a lump sum (LSUM) price, and shall include the complete video recording of the proposed job site as specified in the Special Provisions and the preparation and delivery of videos to the Engineer for the job file.

<u>Pay Item</u>	<u>Pay Unit</u>
Video of the Existing Site Condition	LSUM

## SOIL EROSION & SEDIMENTATION CONTROL

Payment for this work shall be paid for with a (Lump Sum) price. The unit price of the contract shall include all labor, material and equipment necessary to perform the work as directed by the Engineer.

Maintenance and removal of all measures will not be paid for separately, but will be included in the pay items in the contract.

Clean out of the sediment in the drainage structures after the project is completed will not be paid for separately, but will be included in the pay items of the contract.

**Pay Item**

Soil Erosion Including Mud Mat, Inlet Filter, Silt Fence & Turbidity Curtain

**Pay Unit**

LSUM

**ADJUSTING STRUCTURES**

The costs associated with the final adjustment of existing drainage structures, existing gate wells and utility structures located in the project area will be paid for per each (EACH).

The cost shall be payment in full for furnishing the materials, fittings, all necessary excavation, backfilling, disposal of surplus material, clean out and labor necessary to adjust the structure to the required elevation, as herein before specified.

**Pay Item**

Adjusting Structures (type)

**Pay Unit**

EACH

**GRADING**

“Grading,” as specified herein, is incidental to aggregate base and wall installation and shall include all labor, material and equipment required to complete the work as specified.

The following items will not be paid for separately, but shall be included in the price of the specified pay item:

- Completion of earthwork & finish grading
- Hauling and installation of any off-site material that may be required.
- Final adjustment for all utility structures
- Grinding and removal of any roots present as necessary to install pavement as proposed grades
- Grading and compaction of the MDOT Aggregate Base.
- Corduroy, culverts, headwalls, existing manholes and other abandoned utilities and structures no longer in use are to be removed and abandoned

**SPRINKLER REPAIRS**

Payment for this work shall not be paid for separately, but shall be included in the unit prices of the contract and include all labor, material and equipment necessary to repair or replace damaged sprinklers during the course of construction.

**RESTORATION & PLANTING SOIL**

“Restoration” shall be measured and paid for as lump sum (LSUM) as directed by the ENGINEER and include all labor, material and equipment including watering necessary to perform the work as called for in the plans and specifications.

The completed work shall include all materials, labor and equipment required to install furnished topsoil [three inches (2")], and sod along the roadway or as directed by the ENGINEER.

<u>Pay Item</u>	<u>Pay Unit</u>
Restoration	LSUM

**PROJECT CLEANUP**

Payment for this work will not be paid for separately, but shall be included in the pay items of the contract and include all labor, material and equipment necessary to perform the work.

**UNDER DRAIN**

Installation of the under drain, as specified, shall be paid for as below.

“Under Drain” shall be measured per lineal foot (LFT) and shall be payment in full for all materials, labor and equipment needed to complete the work as specified

All under drain used on site shall be wrapped in a geotextile sock and placed on a proper bedding and backfill as specified on the plans. All bedding and backfill material will not be paid for separately, but shall be included in the price of the specified pay item.

The tying in of under drain to existing structures, the connecting to existing edge, the removal of existing edge drain, and the tying of sump leads to edge drain, will be included in the pay item.

<u>Pay Item</u>	<u>Pay Unit</u>
4” Perf. PVC Under Drain w/sock	LFT

**STORM SEWER**

“Storm Sewer,” of the diameter, class and trench detail specified shall include all labor, material and equipment required to complete the work.

“Storm Sewer,” of the diameter, class and trench detail specified will be measured in place by length, in linear feet (LFT), from center to center of end manholes, catch basins, inlets, or drainage ditch with no deductions in length for intermediate structures. When being used as a roadway culvert, the length of the flared end section will not be included in the measurement.

The following items will not be paid for separately, but shall be included in the price of the specified pay item:

- Removal of any existing sewer necessary to install the specified sewer
- Installation of the temporary measures, as directed by the ENGINEER
- Excavation and backfill material
- Connection to existing storm sewer
- Costs associated with installation of the flared end sections if needed
- Costs associated with installation of storm sewer

<u>Pay Item</u>	<u>Pay Unit</u>
Storm Sewer (36” RCP)	LFT



**RIP-RAP**

“RIP-RAP,” as specified on the plans, will be measured as Lump Sum (LSUM), and shall be payment in full for furnishing and placing the material, all labor and equipment necessary to complete the job..

All material used for the rip-rap shall be limestone and as called for on the plans. Removal of any soft or loose material from the water’s edge as directed by the field ENGINEERS will not be paid for separately, but shall be included in the prices of the specified pay item.

“Rip-rap” as specified on the plans, will be measured as LSUM. The LSUM shall be payment in full for furnishing and placing material, all labor and equipment necessary to complete the job.

**Pay Item**  
Rip-Rap

**Pay Unit**  
LSUM

**MODULAR WALL 1**

Installation of the wall, as specified, shall be paid for as below.

“Modular Wall 1” shall be measured per lineal foot (LFT) and shall be payment in full for all materials, labor and equipment needed to complete the work as specified and to include 6A limestone, Class II limestone & Geotextile fabric. Include all excavation (soil, boulders, rip-rap), hauling and disposal off-site, installation, compaction and labor

All wall material and backfill material will not be paid for separately, but shall be included in the price of the specified pay item. Excavation of unsuitable soils and backfill with suitable soils of this excavation will not be paid for separately.

<u>Pay Item</u>	<u>Pay Unit</u>
Modular Wall 1	LFT

**MODULAR WALL 2**

Installation of the wall, as specified, shall be paid for as below.

“Modular Wall 2” shall be measured per lineal foot (LFT) and shall be payment in full for all materials, labor and equipment needed to complete the work as specified and to include 6A limestone, Class II Limestone & Geotextile fabric. Include all excavation, installation, compaction and labor

All wall material and backfill material will not be paid for separately, but shall be included in the price of the specified pay item. Excavation of unsuitable soils and backfill with suitable soils of this excavation will not be paid for separately.

<u>Pay Item</u>	<u>Pay Unit</u>
Modular Wall 2	LFT

**TRAFFIC CONTROL**

“Traffic Control,” as herein specified, will be paid for with a lump sum (LS) price, and shall include the installation, operation, inspection, maintenance (cleaning), repositioning and removal of all temporary traffic control devices, including signage and control devices to install detour.

It is the CONTRACTOR’s responsibility to determine the estimate of quantities for traffic maintenance and control for this project and any additional signing or maintaining traffic devices required to expedite the construction shall be at the CONTRACTOR's expense.

Payment for “Traffic Control” will be based upon the percent completion of the entire project as approved by the ENGINEER. This approval will be based upon the review and approval of the CONTRACTOR’s Application for Payment.

**The contractor shall close High Street with type three barricades, along with the adjacent sidewalk and access points to the boat deck during construction. Appropriate signage and locations have been identified on the traffic control construction plans.**

**IMPORTANT: High Street must be open to traffic by December 01, 2026.**

<u>Pay Item</u>	<u>Pay Unit</u>
Traffic Control	LSUM

**NAUTICAL POSTS AND ROPE**

“Nautical Posts and Rope” will account for the removal and replacement of the Nautical Posts and Rope that were in the influence of construction, and as identified on the construction plans. The new nautical

posts and rope shall consist of the same material, number (of posts), and similar characteristics as the existing nautical posts and ropes that are to be removed.

Payment for this work shall include all labor, material, and equipment necessary to perform the work as required. The maintenance and removal of all measures will not be paid for separately but will be included in the pay items in the contract.

<u>Pay Item</u>	<u>Pay Unit</u>
Nautical Posts and Rope	LSUM

**CONSTRUCTION SITE PROTECTION & TEMP FENCE**

The Contractor shall provide protection as identified in the construction plans for trees, fixed benches and concrete pads, light poles, site features, and all other applicable items. The contractor shall remove and replace all identified materials, such as concrete pads (for statues), brick pavers, sidewalk, and all other applicable items that are disturbed during construction and identified in the construction plans.

Payment for this work shall include all labor, material, and equipment necessary to perform the work as required. The maintenance and removal of all measures will not be paid for separately but will be included in the pay items in the contract.

<u>Pay Item</u>	<u>Pay Unit</u>
Construction Site Protection & Temp Fence	LSUM