

**SPECIFICATIONS FOR**  
**CONCRETE WALK REPLACEMENT AT B-WING**

**AT**

**MONROE HIGH SCHOOL**

901 HERR RD., MONROE, MI 48161

**FILE #26107**

**FOR**

**MONROE PUBLIC SCHOOLS**

1275 NORTH MACOMB STREET, MONROE, MI. 48162

**MARCH 16, 2026**



**KOHLER**  
ARCHITECTURE

[www.kohlerarchitect.net](http://www.kohlerarchitect.net)

1110 WEST FRONT STREET

MONROE, MI. 48161

PH:(724)242-6880

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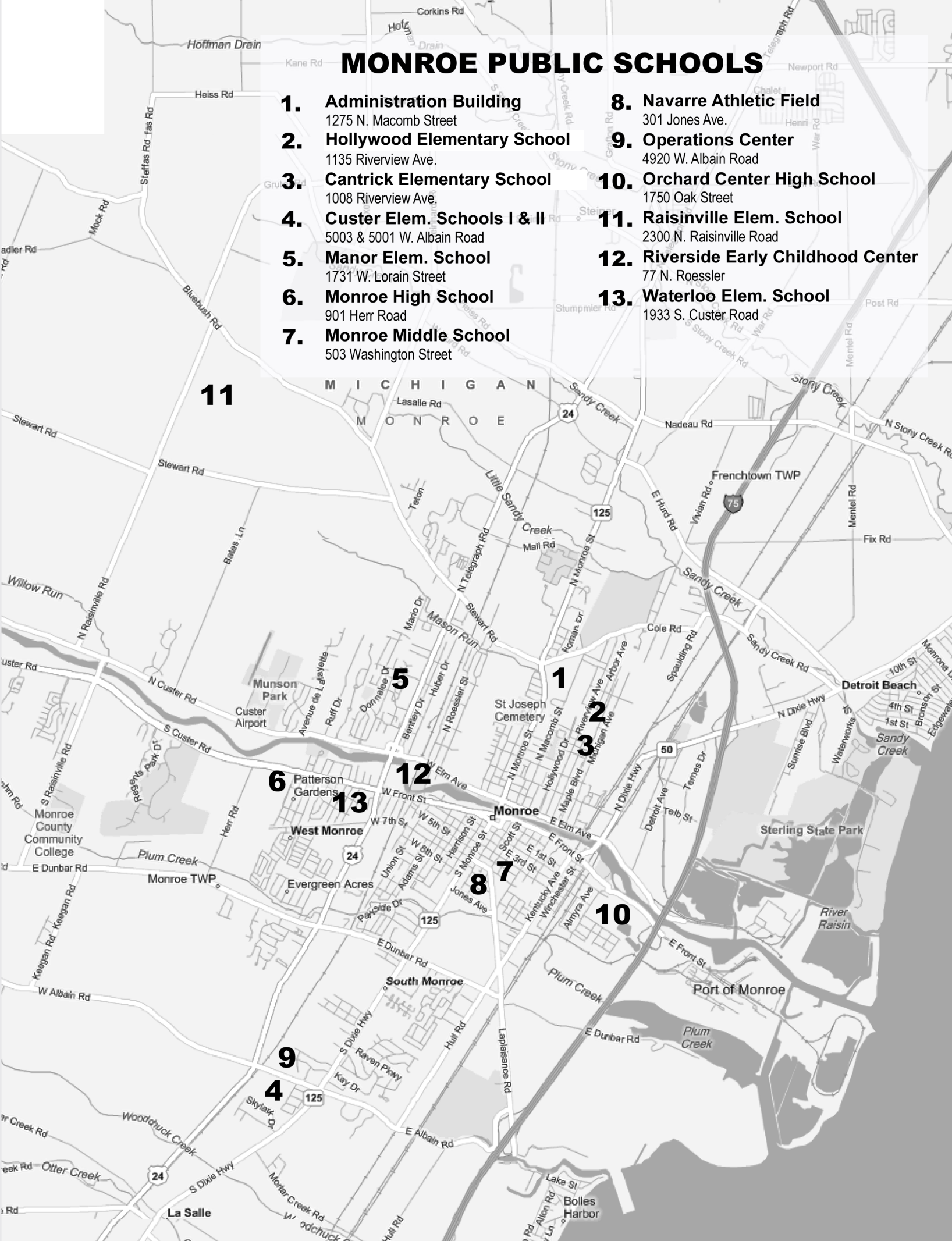
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# MONROE PUBLIC SCHOOLS

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- 4. Custer Elem. Schools I & II**  
5003 & 5001 W. Albain Road
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1731 W. Lorain Street
- 6. Monroe High School**  
901 Herr Road
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503 Washington Street
- 8. Navarre Athletic Field**  
301 Jones Ave.
- 9. Operations Center**  
4920 W. Albain Road
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- 11. Raisinville Elem. School**  
2300 N. Raisinville Road
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77 N. Roessler
- 13. Waterloo Elem. School**  
1933 S. Custer Road



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M I C H I G A N  
M O N R O E

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## ADVERTISEMENT FOR BIDS

**OWNER:** Monroe Public Schools  
1275 North Macomb St  
Monroe, MI. 48162  
Phone: (734) 265-3000

**ARCHITECT:**



**KOHLER ARCHITECTURE**  
1110 West Front St.  
Monroe, MI. 48161  
Phone: (734) 242-6880

**PROPOSALS:** Separate sealed proposals for Prime Contractors are invited for the following construction work: **Concrete Walk Replacement at B-Wing, at Monroe High School, 901 Herr Rd., Monroe, MI. 48161, File #26107, for Monroe Public Schools, 1275 North Macomb Street, Monroe, MI. 48162.** Proposals are for all projects and complete, including all trades (Sub-Contractors and Suppliers), as the successful Contractor will be considered a Prime Contractor entering into a direct contract with the Owner.

**DUE DATE:** Proposals will be received by the owner until **Wednesday, April 15, 2026 at 3:00 P.M.**, at the Monroe Public Schools Administration Building, 1275 North Macomb Street, Monroe, MI 48162. Bids will be publicly opened and read aloud at that time at the same location. The School Board will not consider or accept any bid submitted after the due date and time.

**PLANS:** Electronic pdf copies will be available for viewing and/or downloading at no cost from the Monroe Public Schools website at <https://bids.monroe.k12.mi.us>. Hard copies of plans and specifications may be purchased for \$150.00 for each set from the office of Kohler Architecture, Inc. located at 1110 West Front Street, Monroe, Mi., 48161.

The project will be advertised on the Buy4Michigan.com website and at Builders Exchange of Michigan, Grand Rapids, MI; CMD (Construction Market Data).Norcross, GA; Construction Association of Michigan, Bloomfield Hills, Mi.; Dodge Data & Analytics. Cincinnati, OH. Only bidders registered with the Architect will be sent any addendums and receive any other information regarding this project.

**MANDATORY PRE-BID MEETING:** A mandatory pre-bid meeting will be held at the job site **Wednesday April 1, 2026 at 10:00 a.m.**

These meetings are for the Prime Contractors, (NOT Sub-Contractors), to gain knowledge about the project and submit proof of qualifications for pre-approval. The Architect's Project Manager, will be at this meeting to clarify the bidding procedures, scope of work, identify any items of concern and answer questions from the Bidders for their preparation and submission of representative competitive bids. It is the Contractor's responsibility to assure the Architect has been furnished all necessary information as listed in Instructions to bidders at or prior to this meeting. The Architect will assemble an official list of approved bidders two days after the mandatory pre-bid meeting. The list will be limited to Contractors who attend the entire pre-bid meeting, have signed an official attendance list, have checked out official plans and specifications from the Architect, and meet the minimum Contractor qualifications as listed in the Instructions to Bidders. **Bids submitted by Contractors who are not on the approved bidders list or do not meet these pre-bid requirements will not be opened and will be returned to the bidder.**

**PROPOSAL GUARANTEE:** The proposal must be accompanied by a certified check or bid bond by an approved surety company in the amount of five percent (5%) of the proposal submitted payable to the Owner. Proposals shall remain firm for a period of sixty (60) days after official opening of bids.

**CONTRACT SECURITY:** The successful Contractor will be required to furnish performance, labor and material bonds, each in the full amount of the proposal if payments are issued prior to completion and/or the contract is \$50,000.00 or more.

**FAMILIAL DISCLOSURE:** All bidders must provide disclosure in compliance with MCL 380.1267 and attach this information to the bid. The bid shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the Owner or the employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. The District shall not accept a bid that does not include this sworn and notarized disclosure statement.

**IRAN ECONOMIC SANCTIONS ACT COMPLIANCE:** All bidders must provide a sworn and notarized statement in compliance with Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 and attach this information to the bid. The District shall not accept a bid that does not include this sworn and notarized statement.

**RIGHT RESERVED BY OWNER:** The Owner reserves the right to waive any irregularities, reject any or all bids, or accept the bid that in the opinion of the Owner, will serve the best interests of the Owner.

**PROPOSAL FORM**  
(Submit in Duplicate)

To: Secretary of the School Board:

Having carefully examined the Instructions to Bidders, the Specifications and Drawings, including Addendum No. \_\_\_\_\_, all entitled, "Concrete Walk Replacement at B-Wing, at Monroe High School, 901 Herr Rd., Monroe, MI. 48161, File #26107, for Monroe Public Schools, 1275 North Macomb Street, Monroe, MI. 48162", as well as the premises and the conditions affecting the work, the undersigned agrees to furnish all labor and materials to perform the work, including All Trades, and agrees to accept in payment therefore, the sum of:

**PROPOSAL A** (Base Bid)

\_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

**UNIT PRICE U-1** (Deduct) \_\_\_\_\_ Dollars

(\$\_\_\_\_\_ ) Amount to be deducted for eliminating installation of concrete apron.

The following form of bid guarantee, as indicated below, is herewith enclosed, representing 5% of the amount of the Total Bid, including Alternates, payable to the Owner:

Certified Check \_\_\_\_\_ Bid Bond \_\_\_\_\_

It is agreed that this bid may not be withdrawn for a period of 60 days. The Owner reserves the right to waive any irregularities, reject any or all bids or accept the bid that in the opinion of the Owner will serve the best interest of the Owner.

Guaranteed Maximum percentage of mark-up values on change orders including Overhead, profit, bond, insurance, wage rates, and equipment rates for BOTH prime contractors and subcontractors will not more than \_\_\_\_\_ %.

The undersigned agrees, if awarded the contract, to commence construction immediately and to complete work as noted in Division #1. (Notes: See Supplemental and Special conditions for Liquidated Damages and Instructions to Bidders for Architect's Inspections and Additional Services.)

**PROPOSAL FORM**  
(Submit in Duplicate)

**SUB-CONTRACTORS** - The undersigned submits for your approval herewith as a condition of being awarded the contract, the **separately attached list** of Contractors to whom it is proposed to let portions of this work, agreeing in every way to be responsible for the work, materials, equipment and supplies furnished by each and all of them. **A tentative list shall be submitted with bid and confirmed/verified no later than 24 hours after bid opening.**

**SUBSTITUTIONS** - The following is a list of manufacturers or trade names of substitute materials and equipment, which the undersigned submit for consideration, guaranteeing the same to conform to exact requirements of the specifications. The additions, deductions or no-charge figures indicated are separate from and not part of the proposal. **A tentative list shall be submitted with bid and confirmed/verified no later than 24 hours after bid opening.**

Item	Substitute Mfr./Trade Name	Add	Deduct	No Charge
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**FAMILIAL DISCLOSURE** – As required by the State of Michigan, and included as part of this proposal, shall be an Affidavit for Statement Regarding Familial Relationship, completely filled out and signed.

**IRAN ECONOMIC SANCTIONS ACT COMPLIANCE** - As required by the State of Michigan, and included as part of this proposal, shall be an Affidavit of Compliance of the Iran Economic Sanctions Act, Michigan Public Act No. 515 of 2012, completely filled out and signed.

**BIDDER'S COMPLIANCE ASSURANCE**- Sign in the space provided below to confirm that you have read, understand, and will comply with the requirements as stated in this project manual, including, but not limited to the sections dealing with the following: (1) criminal/security checks/records and, (2) Qualification of Bidders.

(PLEASE PRINT OR TYPE)

Date _____	Firm _____
Address _____	By _____
_____	Signature _____
Phone _____	Title _____
Email _____	Fed. Tax ID _____

STATEMENT REGARDING FAMILIAL RELATIONSHIP

AFFIDAVIT OF \_\_\_\_\_

(insert name of affiant)

STATE OF \_\_\_\_\_) SS:

COUNTY OF \_\_\_\_\_)

\_\_\_\_\_ makes this Affidavit under oath and states as follows:

(insert name of affiant)

- 1. I am a/the: [checkbox] President [checkbox] Vice-President [checkbox] Chief Executive Officer [checkbox] Member [checkbox] Partner [checkbox] Owner [checkbox] Other (please specify) \_\_\_\_\_

of \_\_\_\_\_, a bidder on a construction project for (insert name of contractor)

Monroe Public Schools that involves, at least in part, construction of a new school building or an addition to or repair or renovation of an existing school building or other facilities.

- 2. I have personal knowledge and/or I have personally verified that the following are all of the familial relationships existing between the owner(s) and the employee(s) of the aforementioned contractor and the school district's superintendent and/or board members: (leave blank if none)

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

- 3. I have authority to bind the aforementioned contractor with the representations contained herein, and I am fully aware that the school district will rely on my representations in evaluating bids for the construction project.
4. I declare the above information to be true to the best of my knowledge, information and belief. I could completely and accurately testify regarding the information contained in this affidavit if requested to do so.

\_\_\_\_\_ (signature of affiant)

Dated: \_\_\_\_\_

Subscribed and sworn before me in \_\_\_\_\_ County,

\_\_\_\_\_, on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_. (state)

\_\_\_\_\_ (signature)

\_\_\_\_\_ (printed)

Notary public, State of \_\_\_\_\_, County of \_\_\_\_\_

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

Acting in the County of \_\_\_\_\_

**AFFIDAVIT OF COMPLIANCE**  
**IRAN ECONOMIC SANCTIONS ACT**

Michigan Public Act No. 517 of 2012

**AFFIDAVIT OF \_\_\_\_\_**  
(insert name of affiant)

STATE OF \_\_\_\_\_ ) SS:

COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_ makes this Affidavit under oath and states as follows:  
(insert name of affiant)

1. I am a/the:
- President
  - Vice-President
  - Chief Executive Officer
  - Member
  - Partner
  - Owner
  - Other (please specify) \_\_\_\_\_

of \_\_\_\_\_, a bidder on a construction project for  
(insert name of contractor)  
Monroe Public Schools that involves, at least in part, construction of a new school building or an addition to or repair or renovation of an existing school building or other facilities.

2. I personally certify, represent and warrant that the Bidder (including its officers, directors and employees) is not an "Iran Linked Business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event the Bidder is awarded a Contract as a result of the aforementioned Advertisement for Bids, the Bidder will not become an "Iran Linked Business" at any time during the course of performing under the Contract.

The Bidder further acknowledges that any person as that term is defined in Section 2(f) of the "Act" who is found to have submitted false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the Contract or proposed Contract for which the false certification was made, whichever is greater plus the cost of the Owner's investigation, and reasonable Attorney fees in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on an Invitation to Bid or submit a proposal as to any Request for Proposals for a period of three (3) years from the date that it is determined that the person has submitted the false certification.

3. I have authority to bind the aforementioned contractor with the representations contained herein, and I am fully aware that the school district will rely on my representations in evaluating bids for the construction project.
4. I declare the above information to be true to the best of my knowledge, information and belief. I could completely and accurately testify regarding the information contained in this affidavit if requested to do so.

\_\_\_\_\_  
(signature of affiant)

Dated: \_\_\_\_\_

Subscribed and sworn before me in \_\_\_\_\_ County,  
\_\_\_\_\_, on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(insert state)

\_\_\_\_\_ (signature)

\_\_\_\_\_ (printed)

Notary public, State of \_\_\_\_\_, County of \_\_\_\_\_

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

Acting in the County of \_\_\_\_\_

## Project Schedule

This reflects an anticipated project schedule for this construction project. Contractors shall familiarize themselves with this schedule and note any conflicts on the proposal form. The project schedule will be reviewed, coordinated, and finalized at the contractor/owner pre-construction meeting.

<b><u>Description</u></b>	<b><u>Date</u></b>
Out for Bids	March 16, 2026
Mandatory Pre-bid Meeting	April 1, 2026 at 10:00 am
Official Bidders List	April 3, 2026
Bids Due	April 15, 2026 at 3:00 pm
Post Bid Interviews	April 15-21, 2026
Architect Recommendation	April 22, 2026
Owner Awards Project	April 28, 2026
Notice to Proceed Letters	April 29, 2026
All Shop Drawing Reviews Complete	June 10, 2026
Pre-Construction Meeting	June 10, 2026 – Time and place TBD
Physical Construction	June 15, 2026 – August 14, 2026
Substantial Completion	August 14, 2026
Owner Move-in Date	August 19, 2026
Final Completion	September 14, 2026



Kohler Architecture, Inc.  
1110 West Front Street  
Monroe, MI. 48161  
(734)242-6880

Files: \26107 Project Schedule

**SECTION 002113  
INSTRUCTIONS TO BIDDERS**

**INVITATION**

**1.01 PROPOSAL SUBMISSION**

- A. Bids signed and sealed, executed, and dated will be received per the Advertisement for Bids.
- B. Submit required Supplements To Bid Forms within 24 hours after closing time for receiving bids.
- C. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

**1.02 INTENT**

- A. All work specified in this project manual shall be bid as one package. The prime contractor (assumed General Contractor) shall be responsible to assemble and collect all parts, materials, equipment, labor, etc. as required for a complete finished installation at completion. Included shall be architectural (patching, demolition, finishes, roofing, etc.) mechanical, electrical, plumbing, and all other related trades as required for a complete project.

**1.03 CONTRACT TIME**

- A. The bidder, in submitting an offer, will perform the Work within the time stated in Section 001300 - Project Schedule.

**BID DOCUMENTS AND CONTRACT DOCUMENTS**

**2.01 CONTRACT DOCUMENTS IDENTIFICATION**

- A. All work shall be performed under this contract as described in this project manual as prepared by Kohler Architecture, Inc. Included, but not limited to are; Title Sheet, Index, Advertisement for Bids, Bid Proposal Form, Instructions to Bidders, Certificate of Insurance, Specifications - All Divisions, Drawings, etc.

**2.02 AVAILABILITY**

- A. Electronic pdf copies will be available for viewing and/or downloading at no cost from the Monroe Public Schools website at <https://bids.monroe.k12.mi.us>. Hard copies of plans and specifications may be purchased for \$150.00 for each set from the office of Kohler Architecture, Inc. located at 1118 West Front Street, Monroe, MI., 48161. These are the official and only recognized places that addenda and other information regarding this project will be posted.
- B. The project will be advertised on the Bid4Michigan.com website and at Builders Exchange of Michigan, Lansing, MI; Construct Connect (formerly CMD), Norcross, GA; Construction Association of Michigan, Bloomfield Hills, Mi.; Dodge Data & Analytics. Cincinnati, OH.
- C. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

**2.03 EXAMINATION**

- A. Bid Documents may be viewed at the office of Architect.
- B. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete.
- C. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.
- D. Each bidder shall examine all drawings, specifications and all other data or instructions pertaining to the work. No plea of ignorance of conditions that exist or of difficulties of conditions that may be encountered, or of any other relevant matter concerning that work to be performed in the execution of the work will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill every detail of all the requirements of the contract documents, governing the work. The bidder, if awarded the contract, will not be allowed extra compensation by reason of any matter or thing concerning which such bidder might have fully informed himself prior to bidding.

## 2.04 INQUIRIES/ADDENDA

- A. Addenda may be issued during the bidding period. All Addenda become part of Contract Documents. Include resultant costs in the Bid Amount.
- B. If any person contemplating submitting a bid is in doubt as to the true meaning of any part of the plans or specifications, or other proposed contract documents, or requesting a change, they shall submit to the Architect a written request for interpretation which shall be delivered to the Architect at least (7) days before the opening of bids. Any interpretation of the proposed documents will be made only by an addendum duly issued.
- C. Such addendum will be posted in the same manner as original bid documents. If after the pre-bid meeting and approved bidders are known, notice of such addendum may be emailed to each approved bidder. It shall be the bidder's responsibility to make inquiry as to addenda issued. Any addendum issued during the time of bidding shall be included in the bid, and in closing a contract will become a part thereof.
- D. Any verbal information obtained from or statements made by representatives of the Owner or Architect at the time of examination of the contract documents or site shall not be construed as in anyway amending the contract documents. Only such corrections or addenda as are issued in writing to all bidders shall become a part of the contract. Neither the Owner nor the Architect will be responsible for verbal instructions. Verbal answers are not binding on any party.

## 2.05 VOLUNTARY SUBSTITUTIONS

- A. For a bid proposal to be accepted by the Owner, and considered for contract award, it must contain costs to perform the work exactly as specified. The bidder is required to perform all work, all materials, etc., as specified. Voluntary substitutions may be listed in the bid proposal by the bidder but will only be considered if the Contractor first bids on the work as specified. The bidder must be considered the lowest bonafide, qualified, bidder in the base specified bid before the voluntary substitution is considered.
- B. If a bidder feels a product, assembly of products, or an equal solution is available to perform the same design intent, he shall contact the Architect for review and if approved, will be issued in an addendum as described elsewhere, as an "approved equal".

## SITE ASSESSMENT

### 3.01 SITE EXAMINATION

- A. The bidder shall carefully examine the site of each project and surrounding territory, the means of approach to the site and the structure of the ground and make all necessary investigations required to inform himself thoroughly and fully as to facilities for delivery, storing, placing and handling of materials and equipment and to inform himself fully as to all difficulties that may be encountered in the complete execution of all work in accordance with the contract documents.
- B. For making appointment to visit the site and enter the building, bidders should contact:  
**Deanna Rincon, Operations and Technology Coordinator, Monroe Public Schools,  
1275 N Macomb Street, Monroe, MI 48162 (Phone 734-265-3150)**

### 3.02 MANDATORY PRE-BID MEETING

- A. A mandatory pre-bid meeting will be held at the time and place noted in the Advertisement for Bids. This meeting is for the Prime Contractors, (NOT Sub-Contractors), to gain knowledge about the project and submit proof of qualifications. The Architect's Project Manager, will be at this meeting to collect proof of qualification documentation, clarify the bidding procedures, scope of work, identify any items of concern and answer questions from the Bidders for their preparation and submission of representative competitive bids. It is the Contractor's responsibility to assure the Architect has been furnished all necessary documentation as listed below at or prior to this meeting. The Architect will assemble a list of bidders within seven days after the mandatory pre-bid meeting. The list will be limited to Contractors who attend the entire pre-bid meeting, have signed an official attendance list, and meet the minimum Contractor qualifications as listed in the Instructions to Bidders, and the Advertisement for

Bids. **Bids submitted by Contractors who are not on the approved bidders list or do not meet these pre-bid requirements will not be opened and will be returned to the bidder.**

- B. See Contractor Requirements Section for list of Qualifications to be delivered to the Architect, **at or before**, the Mandatory Pre-Bid Meeting:

## CONTRACTOR REQUIREMENTS

### 4.01 EVIDENCE OF QUALIFICATIONS

- A. The following is a list of items to be delivered to the Architect, at or before, the Mandatory Pre-Bid Meeting:
1. Contractor's Qualification Statement - AIA A305 Current edition (copies available from the AIA, [www.documentsondemand.AIA.org](http://www.documentsondemand.AIA.org)) setting forth previous experience, references, physical plant and equipment possessed, description of organizations, financial resources, conformance with special requirements, qualification statement and such other evidence as may testify to his ability to carry out the contract..
  2. List of Job References for minimum 5 similar (type/size) projects with current contact names and phone numbers providing company experience.
  3. Resumes of key personnel including Project Manager and Project Superintendent providing individual's name, address, current driver's license or legal photo I.D, trade classification, years of trade experience and years employed by contractor.
  4. Equipment list providing physical plant and equipment possessed.
  5. Other such evidence as may testify to the Contractor's ability to carry out the contract.

### 4.02 SPECIAL REQUIREMENTS

- A. All Contractors and Sub-Contractors shall comply with the following conditions:
1. The main office of all Contractors, Sub-Contractors, and other bidders shall be located within approximately a fifty (50) mile radius from the job site.
  2. The Contractor and their Sub-Contractors shall give preference to using local firms for labor and materials where practical without sacrificing the quality, time schedule and cost of the project. Local is defined as that available within the boundaries of Monroe County.
  3. The Owner expects the Contractor to utilize local Sub-Contractors and suppliers when all other factors are similar and when it would serve the Owner's best interest. Other factors that will be used in awarding a contract include cost, past projects and performance, time schedule, qualifications, credit/financial history, bonding capability, etc.
  4. Contractor's Qualifications:
    - a. Experience - The Prime Contractor shall have been in business under its present name and ownership for the last five (5) years. The Prime Contractor shall have completed a minimum of five (5) projects similar to this project, in type and size, using the materials and manufacturers as herein specified.
    - b. Personnel - The Prime Contractor shall have a minimum of (3) regular full-time employees (Estimators, Superintendents, Laborers, etc.) on his company payroll that are qualified with the appropriate skills to perform the work specified. This excludes Owners/Officers of the company.
    - c. Project Superintendent - Shall be sufficiently experienced to coordinate and be responsible to direct all workers and Sub-Contractors in the installation of the work and for taking instructions from the Owner/Architect. **The Project Superintendent shall be on the job site at all times that construction is in progress.** He shall also be responsible to up-date an accurate "As-Built" drawing of all trades on a daily basis to be submitted to the Architect at job completion.  
The same Superintendent shall remain on the job from beginning to end, unless written approval is given by the Architect, in advance. This is to avoid additional costs the Owner will incur should the Architect have to repeat directives, review changes, or any other additional services required to get the replacement Foreman educated with the project's details and scope.
    - d. Franchised Installer - The Prime Contractor, or any Sub-Contractor shall be franchised and approved by the manufacturer of the components, or system, which is

to be installed for the last five (5) years. Contractor shall submit a letter from the component manufacturer, stating this Contractor's previous performance rating of installation of the component on the last ten (10) completed projects.

- e. Equipment - The Prime Contractor shall possess sufficient equipment, tools, safety items, etc., to properly install the work and to ensure the necessary security and safety of the job site, the workers and the occupants.
5. As all of the above items are essential conditions for awarding a contract, the three lowest bidders shall submit the following required items no later than twenty-four (24) hours following the bid opening:
- a. Finalized Sub-Contractor list with each worker's name, address, social security number, trade classification, years of trade experience and years employed by Sub-Contractor. See other Divisions of these specifications that may set ratios of apprentices to journeymen.
  - b. Anticipated material supplier list.
  - c. Guaranteed Maximum percentage of mark-up values on change orders including Overhead, profit, bond, insurance, wage rates, and equipment rates for BOTH prime contractors and subcontractors.

If the Owner awards a contract, sub-contractors shall not be changed by the Contractor unless approved in writing by the Owner. Request for changes shall be submitted by the Contractor, stating the reason(s) for the change, along with all supporting documentation.

6. Any bidder not in agreement or conformance with these conditions shall request a waiver at the time of submitting the bid. Otherwise if a contract is awarded to a Contractor not requesting a waiver, the Contractor will be required to conform as specified.
7. The contractor shall not employ and shall not subcontract with a subcontractor of any degree that employs, an individual required to be registered under Article 2 of 1994 PA 295, as amended, who will be assigned to work within a student safety zone, as that term is defined in 1994 PA 295, as amended.

Neither the contractor nor subcontractor thereof of any degree shall assign to the Owner's Project any individual, and the Owner shall not allow any individual, to regularly and continuously work under contract in any of the Owner's schools if the reports on an individual's criminal history or criminal records check have not been received or if those checks would disclose or do disclose that individual has been convicted of a felony other than a "listed offense" as that term is defined in Section 2 of the Sex Offenders Registration Act, 1994 PA 295, as amended, or which disclose that individual has been convicted of a felony other than a "listed offense" unless the Superintendent and the Board of the Owner each specifically approve of the work assignment in writing. Additionally, the contractor agrees that it shall not assign any of its employees, agents or other individuals to perform, and shall not permit any of its subcontractors to assign personnel to perform, any services under this Agreement where such individuals would regularly and continuously work in the school district's facilities or program sites if such person has been convicted of any of the following offenses:

- a. Any "listed offense" as defined under Section 2 of the Sex Offenders Registration Act, MCL 28.722; or
- b. Any offence that would, in the judgment of the Board, create a potential risk to the safety and security of students served by the school district or employees of the school district; or
- c. Any offense enumerated in Sections 1535a (1) or 1539b of the Revised School Code, MCL 380.1535a(1) or MCL 380.1539b; or
- d. Any offense of a substantially similar enactment of the United States or another State.

Any personnel of the contractor or of the subcontractors thereof of any degree that have been charged with any of the above-referenced crimes shall immediately report that circumstance to the Owner's superintendent and shall not be permitted to work in any of the schools of the Owner during the pendency of the prosecution associated with such charge(s). The Owner reserves the right to refuse contractor's assignment

of any individual, agent or employee of the contractor or subcontracted personnel of any degree to render services under this Agreement where the criminal history of that individual (including any pending charges) indicate, in the school district's judgment, unfitness to perform services under this Agreement. Violation of the above by the contractor or a subcontractor thereof shall be a basis for immediate termination of this Agreement. The contractor shall require language similar to the above in all of its agreements and/or contracts with its consultants, subcontractors, suppliers and materialmen of any degree.

8. Any and all personnel of the contractor, any subcontracted personnel, and/or any suppliers thereof of any degree, assigned to regularly and continuously work under contract in any of the Owner's schools shall be required to submit a signed Conviction Disclosure Form and a legal photo identification for a background check before being allowed on the construction site. (Copy of form included at end of this Division).
9. Contractor shall submit a signed and notarized copy of the Statement Regarding Familial Relationship with his Bid Proposal. (Copy of form included in bid specification packet.)
10. Contractor shall submit a signed and notarized copy of the Affidavit of Compliance Iran Economics Sanctions Act with his Bid Proposal. (Copy of form included in bid specification packet.)

## **BID SUBMISSION**

### **5.01 DEPOSIT AND OPENING OF BIDS**

- A. Proposals shall be submitted and delivered in opaque envelopes addressed to **Bid Location** and clearly marked **Proposal**. There shall also appear name and address of the bidder.

### **5.02 PREPARATION OF PROPOSALS**

- A. Proposals shall be prepared only on the form provided by the Architect, and all spaces left for the purpose shall be fully filled in. All designations and prices shall be fully and clearly set forth, with the amount of the bid stated in words and repeated in figures. In case of variations the worded amount shall prevail. Erasures or other changes in the bid shall bear the signature of the bidder. Proposals must be signed.
- B. The bids shall be on the basis of guaranteed sum. Bidders should not add any conditions or qualifying statements, the proposal shall not contain any added recapitulation of the work to be done nor will oral, electronic or telephonic modifications of the work be considered, as otherwise the proposal may be declared irregular.

### **5.03 BID PROPOSAL CLARIFICATIONS**

- A. Bidders shall submit prices for each proposal, alternate, unit price, or other requested bid amount. Bidders may elect not to bid the Alternate prices but may jeopardize their chances of being awarded a contract. The Owner has the right to award contracts to the bidder on the basis of any combination of base bid and alternate plus any unit prices or other bid amounts that best serves the Owner's best interest.
- B. The alternate numbering system does not reflect any priority. The Owner may select and award a contract on the basis of which alternates are in their best interest.
- C. In the case where several separate Base Bid Proposals are requested, the Owner may award contracts on the basis of these proposals or a combined bid, to one Contractor or several Contractors, whose bid(s) serves the Owner's best interest. If the Base Bids are an either/or selection, the Owner may choose the Proposal (Base Bid or Optional Bid) that serves their best interest.

## **BID ENCLOSURES/REQUIREMENTS**

### **6.01 BID GUARANTEES**

- A. No proposal will be considered unless it is accompanied by the bid guarantees as stated in the official Advertisement for Bids. Guarantees may be in the form of a certified check or a standard form of bid bond by a corporate surety licensed to underwrite bids in the State of

Michigan (facsimile copies are not acceptable). Guarantee shall be in the amount of five percent (5%) of the amount of the bid submitted, or in the case of separate and combined bids, five percent (5%) of the total of the separate bids. Amount shall include Base Bid plus all Alternates. Guarantees shall be drawn in favor of the Owner.

## **6.02 RETURN & FORFEITURE OF BID GUARANTEES**

- A. The bid guarantees of all except the three lowest Bidders will be returned within fifteen days after the opening of bids. The guarantees of the three lowest bidders will be returned within three days after the executed contract and bonds have been finally approved by the Owner.
- B. In the event of the successful bidder refusing to enter into contract, or failing to execute the contract and bonds within ten (10) days after formal notification of award of contract, then a sum not to exceed five percent (5%) of the amount of the bid shall be forfeited to the Owner due to lack of performance and as liquidated damages.

## **OFFER ACCEPTANCE/REJECTION/WITHDRAW**

### **7.01 RIGHT RESERVED BY OWNER**

- A. The Owner reserves the right to waive any irregularities, reject any or all bids, or accept the bid that in the opinion of the Owner will serve the best interest of the Owner. The Owner also reserves the right to reject the bid of any bidder who has previously failed to perform properly, or to complete on time contracts of a similar nature, or who is not in a position to perform the contract, or who has habitually and without just cause neglected the payment of bills or otherwise disregarded his obligations to Sub-contractors, Material Men or Employees.
- B. The ability of a bidder to obtain a performance bond shall not be regarded as the sole test of such bidder's competency or responsibility.

### **7.02 ACCEPTANCE OF OFFER**

- A. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Notice To Proceed.

### **7.03 WITHDRAW OF PROPOSALS**

- A. Any bidder may withdraw his bid at any time prior to the hour and date specified for openings. No bidder may withdraw his proposal for **Sixty (60) days** thereafter. Negligence on the part of the bidder in preparing his bid confers no right of withdrawal or modification of his bid after such bid has been opened.

## **ARCHITECT'S SERVICES**

### **8.01 ARCHITECT'S BASIC SERVICES**

- A. The Architect will schedule and conduct a pre-construction meeting before work starts.
- B. The Architect will make job site visits on a scheduled basis (or) on a random basis, (approximately one per week), during the course of construction. He shall be provided with access to all areas of work to ensure construction is proceeding in accordance with the contract documents. The Contractor shall schedule all sample mock-ups, questions regarding the project, any special meetings for Architect's review and approval during this visit.
- C. The Contractor is responsible to notify the Architect 48 hours in advance for the following special visits:
  - 1. First day of job set-up to review material storage placements & general layout
  - 2. All excavations prior to backfill or concrete placement & during testing, after demolition, but before new materials are installed, to view concealed job conditions.
  - 3. To review/approve all samples of construction before Contractor continues with the work. Sample areas may be described in other Divisions of the Specifications - this may also include special visits by manufacturers of systems.
  - 4. When observations/reviews/approvals are made by representatives of Manufacturers and Suppliers
  - 5. The Contractor shall submit a notice of completion letter to the Architect in writing when all work is complete and ready for a punch list. Under the normal services, the Architect will

make (1) punch list visit, (1) re-punch and (1) random final check. The initial punch list will be made by the Architect in the presence of the Contractor and the Owner to determine what items may need corrections and if the project is substantially complete. One week's advance notice is required.

The punch list will be written up by the Architect and describe general and/or specific items in general locations. It is the Prime Contractor's responsibility to also make a list of his own, dealing with the specifics and translate them to the proper Sub-Contractors.

If the Architect arrives at the job site and the project is not done and ready for a punch list, but rather a "to do list", the Architect has the right to leave and will only return when notice of completion is again received in writing. This process will use up (1) of the normal punch/re-punch visits.

The first re-punch and the final random re-punch visit shall again be requested in writing, similar in format to the initial punch list.

6. The punch and re-punch list include physical items in the field requiring completion, as well as paperwork items that must be submitted prior to job "close-out" and "final completion" as noted in the General/Special Conditions. Final payment can only be considered once all items are completed to the satisfaction of the Owner/Architect.

## 8.02 ARCHITECT'S ADDITIONAL SERVICES

- A. The contractor should review the special conditions for any applicable liquidated damages that apply for failure to meet "substantial" or "final completion" dates. In addition to these costs, or in the event that liquidated damages are not part of this contract, the contractor is responsible to reimburse the owner for the direct costs incurred for additional time by the architect, administrative/custodial staff, attorney, etc., when the project goes beyond the established dates and the cause of the delay is not beyond his control.
- B. The Contractor will be responsible to pay for all additional Architectural services, including all special visits requested by the Contractor to resolve problems that are due to the lack of performance by the Contractor. Examples of certain circumstances which will cause the Contractor to incur additional Architectural service fees include, but are not limited to the following:
  1. Shop drawing submittals that are rejected due to being incomplete or for submitting on materials other than as specified and noted on the Bid Proposal Form.
  2. Contractor elects to use more than (1) Sub-Contractor for any trade that results in duplicate shop drawing submittals.
  3. Contractor requests a punch list in writing and Architect finds the work incomplete.
  4. If the Contractor fails to complete all punch list items within the (3) punch/re-punch visits allowed, the costs for all additional punch list visits will be deducted from the final cost amount due to the Contractor to cover any Architect's, Owner's, or Attorney's additional services at their regular billing rate until the work is accepted by the Architect and Owner.
  5. Contractor installs other than approved materials, resulting in additional time incurred by Architect.
  6. Contractor changes job Foreman or fails to have job Foreman present on job when visited by the Architect, which requires Architect to educate new Foreman to job status or repeat instructions.
  7. Contractor's layout or installation is found to be significantly different than the design or shop drawings and the Architect is required to review, approve, or make extensive revisions.
  8. Contractor's failure to promptly correct or make good any problem that is part of this contract work and falls under the Contractor's responsibility to properly work as intended, either during the course of construction, or during the close-out period, all of which requires additional time by the Architect for reviews, observations, etc.
  9. All Architect's/Engineer's time to close out the project beyond the thirty (30) days after substantial completion, including making phone calls, writing letters, reviewing documents,

special close-out meetings, etc., unless a time extension has been approved with a signed change order.

10. Note: All additional time required by the Architect to resolve any of the above items will be back charged against the contract amount based on the Architect's/Engineer's current hourly rate and made payable to the Architect by the Owner. The Contractor shall be informed by the Architect within ten (10) days of any incident of any intent to invoke back-charges for additional Architectural services. It shall be the Contractor's responsibility to request in writing any estimates of additional costs to be incurred. Contractor's failure to respond to the estimate in a timely manner will be interpreted as Contractor's acceptance of all additional Architectural services for back-charges as summarized by the Architect.

**END OF SECTION**



**SECTION 007400  
SUPPLEMENTARY AND SPECIAL CONDITIONS**

**PART 1 GENERAL**

**1.01 CONTRACTS, BONDS AND INSURANCE**

A. Contract

1. The Architect will prepare the AIA Document A101-2017, Standard Form of Agreement Between the Owner and Contractor based on the bid amount agreed by the Owner. Successful bidders will be required to furnish bonds and insurance in accordance with the provisions of the General Conditions. Executed duplicate copies of bonds and insurance certificates will be required for each set of contract documents. On this project the Owner elects not to require "Project Management Protective Liability Insurance".
2. All conditions of all contract and sub-contracts for labor and material to be furnished on this work shall be as set forth in the General Conditions for Building Contracts, Form A-201-2017, latest edition of the American Institute of Architects. Where there is a difference between this project manual and Form A-201, this project manual shall govern. All Contractors and Sub-Contractors shall familiarize themselves with all conditions of this form and be bound by them. (Copies available from the AIA, [www.documentsondemand.AIA.org](http://www.documentsondemand.AIA.org), at cost.)

B. Guarantee Bonds:

1. Article 11.5 of the General Conditions shall be supplemented as follows:
  - a. "Prior to signing the contract, Contractor shall pay the premium for and furnish Performance Bond in the full amount of the contract price to cover faithful performance of the contract, and a Labor and Materials Bond in full amount of contract price to cover payment of all obligations arising thereunder. Bonds shall be in such form as Owner may prescribe and with such sureties as he may approve."
2. In lieu of the Performance and Labor Bond as stated above, and if allowed in the bid advertisement and the project contract cost including Alternates, is under \$50,000.00, the Contractor may perform the work to the point of total completion before receiving any payments. The payment will be issued upon completion of all physical and paperwork. However, the Contractor's bid surety (certified check only of 5% of bid) will be held by the Owner until completion. On any work with a contract cost of \$50,000.00 or more, a 100% Performance/Labor Bond must be provided.
3. An irrevocable Letter of Credit from a local Monroe County banking institution in the amount of the contract is allowed in lieu of a Performance and Labor Bond. The irrevocable Letter of Credit must conform to standards of the "Uniform Customs and Practice for Documentary Credits, 1983 Revision, The International Chamber of Commerce Publication No. 400".

C. Insurances:

1. Article II of the General Conditions shall be supplemented as follows:
  - a. "Insurance shall be written for amounts as required by law or not less than the following limits of liability" for personal and property losses:

General Aggregate	= \$2,000,000.00
Product and Completed Operations Aggregate	= \$2,000,000.00
Personal & Advertising Injury	= \$1,000,000.00
Each Occurrence	= \$1,000,000.00
Medical Expense	= \$ 5,000.00
Automobile - Owned/Non-Owned	= \$ 1,000,000.00
  - b. The Owner shall provide and pay the premium for Owner's liability and builders risk insurance.
  - c. Contractor shall provide certificates of coverage for necessary unemployment insurance, workman's compensation, etc., as required by the State of Michigan and the Federal Government.

- d. Contractor shall provide and pay the premium to add the Owner and Architect as additional insured to the insurance coverage for this work (See this section for Hold Harmless / Indemnify). (This is to cover any claims against Owner/Architect due to Contractor's negligence.)
- e. Only Certificates of Insurance Certified using Accord Form #25-S (7-90) will be acceptable. All insurance shall be carried with companies authorized to do business in the State of Michigan and which are satisfactory to the Owner. See sample certificate at end of "Instruction to Bidders".
- f. The insurer shall agree to notify the project Owner prior to termination, or reduction of any insurance coverage. The certificate shall include the following statement, "30 Day Notification in Case of Cancellation", and shall contain no disclaimers.
- g. The Contractor shall require his Sub-Contractors who are not protected under his liability and workman's compensation insurance to purchase and maintain their own insurance of the same types and limits as is required of the Contractor.

#### **1.02 EXAMINATION OF SITE, MEASUREMENTS & LEVELS:**

- A. Bidders shall visit the site of the work, compare the drawings and specifications with any work in place, and inform themselves of all conditions, including other work, if any, being performed. Failure to visit the site will in no way relieve the successful bidders from the necessity of furnishing any materials or performing any work that may be required to complete the work in accordance with the contract documents without additional cost to the Owner.
  1. Each Contractor shall be responsible for the correct installation of his work to comply with the plans and specifications.

#### **1.03 GENERAL CONTRACT**

- A. Local Labor & Materials - Each Contractor shall give preference to the employment of local labor and the purchase of materials locally where same are available at prices equivalent to those obtainable elsewhere.
- B. Current Laws - The Contractor shall keep himself fully informed of all laws and municipal ordinances and regulations in any manner affecting those engaged or employed in the work, and all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall, at all times, observe and comply with all such current laws, ordinances, regulations, orders and decrees which are effective during the progress of the work; and shall protect and indemnify the Owner and its officers and agents against any claim or liability arising from or based on the violations of any such law, ordinances, regulation, order or decree, whether by himself, his Sub-contractors, or his employees.
- C. Collusion - If at any time it shall be found that the person, firm, or corporation to whom the contract has been awarded has, in presenting any bid or bids, colluded with any other party or parties, then the contract so awarded shall be null and void, and the Contractor and his sureties shall be liable to the Owner for all loss or damage which the Owner may suffer thereby and the Owner may advertise anew for bids and said work.
- D. Responsibility - The Contractor is primarily responsible for all work. He shall coordinate all Suppliers, Sub-Contractors, etc., that he may contract work with. He shall notify all Sub-Contractors in advance to avoid any unnecessary delays. The Contractor shall assume responsibility for the general charge and security of the building within the contract limits until it is accepted by the Owner. Contractor shall be responsible for maintenance of his work until final acceptance by Owner, and shall take such measures as necessary to ensure adequate protection of equipment and materials during delivery, storage, installation, start-up, temporary operation and shut-downs and any damage, vandalism, thievery, etc., to stored, or installed materials or any part of this construction.
- E. General/Prime Contractor's Responsibility - It is the General Contractor's responsibility to provide and install all items specified in this contract, to assemble and collect all parts, materials, equipment, labor, etc. as required for a complete finished installation. Where these documents state, for clarification purposes that the work or item is to be completed by certain trades or Sub-contractors, (i.e. Mechanical or Electrical Contractor), it shall be referenced only

to those related divisions. These specifications and drawings do not control the Contractor in dividing the work among his workers, Sub-contractors, suppliers, etc., or in establishing the extent of work to be performed by any trade.

- F. Lay Out - The Contractor shall immediately locate all general reference points and take such action as is necessary to prevent their destruction; lay out his work and be responsible for all lines, elevations and measurements of buildings, grading, paving, utilities and other work executed by him under the contract. He must exercise proper precautions to verify figures shown on drawings before laying out work and will be held responsible for any error resulting from his failure to exercise such precaution.
- G. Cooperation & Courtesy - There must be complete co-operation between all Contractors, as well as between Contractor and Sub-Contractor, to insure satisfactory performance of all work. Foul language, alcoholic beverages and illegal or controlled substances/drugs will not be allowed by anyone under the control of this Contractor. Tobacco usage will also not be allowed where prohibited by law or by the Owner's wishes/policies. Courtesy must be exercised towards the owner, their staff and customers, deliverymen, etc., at all times.
- H. Skilled Labor - All labor on this project shall be done by skilled mechanics, qualified and competent to perform the best grade of workmanship in the trade of work being performed, such as a Roofer shall not perform finish carpentry or drywall work in an exposed location. Each Contractor and Sub-contractor shall provide a competent foreman at the job, who shall be responsible for taking instructions from the Architect and directing and installation of the Contractor's work.
- I. Equal Opportunity - It shall be understood that the Contractor shall comply with the State Policy of Equal Employment Opportunity established by the Michigan Civil Rights Commission. The following Civil Rights Laws must be conformed to:
  - 1. Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C., Section 2000d et seq., which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance
  - 2. Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C., Section 794, which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance.
  - 3. Title IX of the Education Amendments of 1972, as amended, 20 U.S.C., Section 1681 et seq., which prohibits discrimination on the basis of sex in education programs and activities receiving Federal financial assistance.
  - 4. The Age Discrimination Act of 1976, as amended, 42 U.S.C., Section 6101 et seq., which prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance.
- J. Hold Harmless/ Indemnify Clause - The Contractor agrees to comply with all laws and regulations applicable to the work to be performed and will indemnify, defend and save harmless the Owner and Architect and said property from damage which may arise as a result of the work performed and list each on certificates of insurance as additional insured, if Project Management Protective Liability Insurance is not provided.
- K. Shop Drawings & Data Sheets - Submit shop drawings per 013000 - Administrative Requirements for review by the Architect. A copy of all shop drawings shall be kept at the job site by the Contractor. The Contractor shall review and stamp approved, note changes, etc., before submitting to the Architect.

Shop drawings are not contract documents. Their purpose is to demonstrate the way the Contractor proposes to conform with the information given on the Architect's drawings. Shop drawings shall be submitted on all pre-manufactured items, custom fabricated components, any individual component that fits with or into another component to form the entire assembly, or on items specifically specified in certain divisions.

The Contractor, his Sub-Contractor and Supplier shall be responsible to determine and verify all materials, field measurements and field construction data, prior to submittal to the Architect.

The Architect's review is only for the limited purpose of checking conformance with information given and the design concept expressed in the contract documents. The Architect's review is not conducted for the purpose of determining the accuracy and completeness of details, such as dimensions, quantities and the assembly of specific components to work as a whole. The Architect is also not responsible for any safety precautions, construction means, methods, techniques, sequences or procedures.

It shall also be the responsibility of the Contractor, his Sub-Contractor or Supplier to work from a full set of contract documents in preparation of the shop drawings, so that each part or component will work with those parts as furnished or fabricated by others, so that the assembled whole works together as intended.

Shop drawings shall be submitted to the Architect early enough to allow adequate ordering, fabricating and delivery to the job site. Once received by the Architect the shop drawings will be returned to the Contractor in a timely manner. For estimating purposes and fitting into the job progress construction schedule, the following estimates of time may be used: Engineered reviewed drawings - 14 days; in-house Architectural reviewed drawings 7-10 days. Failure by the Contractor to submit enough in advance to the Architect in no way relieves the Contractor from completing the work in the time frame specified. The Contractor relieves the Architect of all responsibility and liability should he proceed with construction, fabrication or delivery of the specified part(s) without obtaining the Architect's review first.

Data sheets, manufacturer's specifications, picture cuts, etc., shall be submitted for all materials proposed to be used in this contract. All materials shall be asbestos free, 100%. No use of any materials, glues, sealants, gaskets, etc., containing any trace of asbestos shall be used on this project. Data Sheets shall clearly state the product's composition, or that no asbestos is used.

All finish materials and/or their adhesives for securing to substrates, shall meet the A.D.A. (American Disability Act), as passed July 1990 and revised September 15, 2010 to regards to elimination of toxic/allergic chemical contamination via direct vapors/fumes, or when in contact with normal spilled materials and cleaning agents.

Submit at the beginning of the project an index sheet listing all proposed shop drawings to be submitted.

- L. As-Built - The Contractor shall keep an accurate record of all deviations from the contract drawings and specifications. He shall neatly and correctly enter in pencil any deviations on the drawings affected and shall keep drawings available for inspection. Extra set of transparencies will be furnished for this purpose. Submit As-Built per 013000 - Administrative Requirements and 017000 - Execution and Closeout Requirements for review by the Architect.
- M. Manuals & Brochures - The Contractor shall submit per 013000 - Administrative Requirements and 017000 - Execution and Closeout Requirements to the Architect at completion, maintenance manuals, instructions, parts, etc., of all items installed as part of this work. Include all warranties, application for extended warranties, etc. These items shall be submitted as shop drawings.
- N. Debris - All rubbish resulting from the work herein specified shall be removed from the premises as fast as it accumulates.

#### **1.04 DEFECTIVE WORK & GUARANTEE:**

- A. The Contractor shall maintain his work in good condition, and repair at his own expense any work or material which proves to be defective within one (1) year from the time of final payment. A specific time can be determined towards the end of job, but it is estimated as approximately thirty days after substantial completion. This shall not be construed to cover misuse or abuse. Submit the guarantee in writing to the Architect upon completion. Specific material, equipment, or special trade warranties and guarantees as noted in these specifications shall also be submitted in writing. All warranties shall be written using the format and language as in sample warranty listed at the end of this section. Included, but not limited to, shall be the following:
  - 1. All Sub-contractors shall submit a signed written warranty same as the general contractor.
  - 2. All warranties shall be addressed to the Owner, on Company's letterhead.

3. All equipment warranties shall start from date of project substantial completion in the phases noted – not the dates the equipment was installed or started up.
  4. All work under this contract, in addition to the roof, shall be watertight and leak proof throughout at every point, and in every area, for a period of (1) year from date of final payment, except where leaks can be attributed to damage caused by external forces beyond the Contractor's control. The Contractor shall immediately, upon written notification by the Owner, respond to the site to determine the source of water penetration and if found to be caused from faulty materials/workmanship resulting from this contract, repair or replace the item(s) or do any other work necessary to make watertight at his own expense.
  5. Contractor shall also, at his own expense, repair or replace, or reimburse the Owner for any damaged materials, finishes, and furnishings/contents damaged as a result of this water penetration, in order to return the premises back to the same condition prior to the water penetration.
  6. In addition to the warranties as stated in this manual, the Contractor shall comply with all other warranties referred to in any portions of the contract documents or otherwise provided by law or in equity, and where warranties are in conflict, the more stringent requirement shall govern.
- B. Neither the final certificate nor payment shall relieve the Contractor of responsibility for lack of conformance to the contract documents, lessening the quality of specified work or scope, errors, negligence, faulty materials or faulty workmanship within this contract, the period provided by law at the location of this project, or any special equipment/material warranties.
- C. The Contractor shall bear the cost of correcting mistakes, which by a reasonable check he could have avoided.
- D. The Contractor shall promptly remove from the premises all materials, whether worked or un-worked and take down and remove all portions of contract work demanded by the Architect or his representative as failing to conform to the contract.
- E. The Contractor shall promptly replace and re-execute the work in accordance with the contract and shall bear expense of same, together with the expense involved in making good all work of other Contractors destroyed or damaged by each removal or replacement. If the Architect deems it expedient to accept work injured or not done in accordance with the contract, the difference in value, making a full allowance for damage, shall be deducted from the contract sum if acceptable to the Owner.
- F. Each Sub-Contractor shall warrant that all work installed by his company, including that movable or adjustable, shall remain in good working order and agrees to remedy and correct and place in proper operating condition all such found not in good working order during the period of warranty unless such work has been abused or neglected by the Owner.

#### 1.05 DEFINITIONS:

- A. Architect - Shall be interpreted to mean **Kohler Architecture, Inc.**, or his authorized representative.
- B. Contractor - Shall be interpreted to mean the Prime Contractor who has a direct contract with the Owner. (assumed General Contractor)
- C. Owner - Shall be interpreted to mean **Monroe Public Schools**
- D. Sub-contractor - Shall be interpreted to mean any person or entity who has a direct contract with the Prime Contractor, either supplying labor or materials.

The Prime Contractor shall employ only (1) Sub-Contractor/Supplier for each trade/category of work for the entire contract, or in the case of multiple building/sites, (1) Sub-Contractor/Supplier in each trade/category for all sites/buildings. This improves coordination and project scheduling, reduces shop drawing and payroll reviews, and standardizes materials and installation.

- E. Substantial Completion - Shall be defined to mean when the Architect establishes in writing, based on his knowledge, observations and beliefs, that all necessary components are installed

for the project to be acceptable for the Owner's intended use and beneficial occupancy, including the Contractor obtaining governing agency approvals (City, Township, County, and/or State) on all permits issued on this project. The project must meet substantial completion no later than the date established elsewhere, unless amended by change order.

- F. Final Completion - Shall be defined to mean when all work, including completion of all punch list items, paper work has been submitted (guarantees, final waivers, as-builts, etc.) and the Architect approves the Contractor's final certificate for payment.

**1.06 SPECIAL CLARIFICATIONS:**

- A. Manufacturer's Specifications - All materials, items, equipment, etc., shall be installed in accordance with the manufacturer's specifications and recommendations when not otherwise specified. These specifications do not replace or override any installation manuals/directions. The installer shall provide all materials and perform all work that is needed for this application, whether specialized to this installation or not, as required and/or recommended by the manufacturer so as not to void any warranties and functions properly so that each component becomes part of the entire assembly.
- B. Where a material or installation is specified in these specifications and is in conflict with manufacturer's recommendations, the Contractor shall immediately notify the Architect before proceeding with the work. Failure to do so will place full responsibility upon the Contractor performing the work.
- C. Methods of Construction - The Contractor takes full responsibility and liability for the means and methods of construction to perform the work under this contract. The timing, scheduling and skill of workers and suppliers shall be coordinated prior to beginning any work. The type of equipment, installation, sequence, temporary provisions, etc., all as required to produce the finished product for a first-class installation shall be determined by the Prime Contractor. Any delays, errors, omissions or any other problems caused to the job by a change in Sub-contractors or suppliers, bad scheduling, lack of supervision, material deliveries, etc., shall be borne by the Prime Contractor.
- D. Changes - These drawings and specifications are provided to give the Contractor an understanding of the systems and materials to be installed under this contract. Where the scope of work or details are in conflict with job conditions, the manufacturer's specifications, manufacturer's guarantee, etc., they shall be modified as required by the Contractor. The Architect shall be notified prior to any change. When these details exceed the manufacturer's requirements and the guarantee, no change shall be made, unless so directed by the Owner or Architect, and the work shall be performed in strict accordance to these drawings and specifications.

When a change is initiated either by the Owner, Contractor or Architect, the Contractor shall submit a cost breakdown of the change for approval by the Architect and Owner, before proceeding with the work. Any change in completion date shall also be documented. A formal Change Order, signed by the Owner, Contractor and the Architect will follow to authorize the work to be done and the contract amount and/or completion date to be changed. A Change Order must be fully executed before including on pay requests.

- E. To insure the intent of the contract documents are being complied with and since the Architect is not providing full time inspection/observation services, the Contractor shall perform the following:
  - 1. On all demolitions, removals, excavations or existing concealed conditions, the Contractor shall certify that conditions found were as anticipated, or as specified in the contract documents. If the above conditions are closed-up, covered, or back-filled prior to notifying the Architect or prior to his scheduled inspection, the Contractor shall document with photos, measurements and/or sketches how the concealed conditions were constructed.
  - 2. Should the Contractor become aware of any deviations, unusual circumstances, cause for extra work, or other reasons he feels may have an effect, or cost change on this contract, he shall immediately notify the Architect for directions.

3. Contractor's failure to notify the Architect/Owner, prior to performing the additional work, accepts full responsibility for any extra costs, delays or non-acceptance by the Owner or Architect that may be produced or incurred to the contract.
- F. Discrepancies - Should the contract documents disagree (drawings and specifications), the better quality or larger quantity of materials or work shall be included in the bid and unless otherwise ordered in writing, shall be furnished by the Contractor.
- G. Standard Codes - Reference made to standard specifications or codes refer to latest edition unless otherwise noted. Such reference includes current addenda and errata, if any. All work shall meet or exceed all zoning and code requirements, including the current Michigan Building Code, or as adopted by the local building authority, and State Fire Marshal.
- H. Organization - The organization of the specifications into Divisions, Sections and Articles, and the arrangement of drawings shall not control the Contractor in dividing the work among Sub-contractors or in establishing the extent of work to be performed by any trade.
- I. Materials - Shall be new. Seconds or damaged materials will be rejected by the Architect, who reserves the right to disapprove and reject any materials proposed or installed, which in his opinion fail to meet quality standards specified. Contractor shall, at his expense, remove and replace with approved materials, any rejected materials.
- J. Labor - As noted elsewhere, it is the Prime Contractor's responsibility to keep the job moving according to the progress schedule and meet completion dates specified or stated in the Bid Proposal. Whether Workers/Sub-Contractors/Suppliers are union or non-union, default, quit, fail to perform, it is the Prime Contractor's responsibility to work out problems that may occur to keep on schedule and prevent any damages, delays, or disturbances caused to the Owner and/or job site.

#### **1.07 DAMAGE & REPAIRS TO SITE & BUILDING:**

- A. The site, building and furniture or equipment, including such items as walls, ceilings, floors, roofs, trees, drives, walks, curbs, gutters, paving, grade areas, etc., cut up or damaged during construction of this project shall be repaired or replaced in a neat and workmanlike manner, to the satisfaction of the Owner and Architect, by the Contractor responsible.
- B. The Contractor shall be responsible for the security, water tightness and systems operation of the building in areas of this work. Any vandalism, water damage, theft, electrical/mechanical damages, etc., to the building or its components or any stored or installed materials as part of this work, or furniture and equipment (ceilings, floors, walls, desks, computers, books, papers, etc.) shall become the Contractor's responsibility to restore (replace or repair) all items to their same condition as when the work started. Included, but not limited to, shall be all additional costs for Architects, Attorneys and Owner's staff time to clean up, document and resolve any damages or issues.

#### **1.08 PROGRESS PAYMENT:**

- A. Owner shall make payments on account, upon issuance of certificates of payment by the Architect, for labor and materials incorporated in the work and for materials suitably stored at the site, up to ninety percent (90%) of the value thereof. Properly documented invoices shall be submitted for all stored materials. Pay requests shall reflect only the work stored or completed at date of submittal to the Architect. No projections of cost for anticipated work beyond the submittal date will be allowed.
- B. Payments shall stop at 90% of the total contract, until project is SUBSTANTIALLY COMPLETE (Owner's use) and until governing agency (Governing Building Authority) has given approval. (See Substantial Completion definition in Section 1.1D-5)
- C. Final payment will be made when the work is FULLY PERFORMED and FINAL COMPLETION is achieved.
- D. Certain specialty construction projects are subject to other payment conditions, such as re-roofing, re-paving, etc. (see Special Payment Conditions at end of this Division, if applicable).
- E. Also see Instructions to Bidders for any other requirements.

## 1.09 LABOR RATES

### A. State Funded Projects

1. On all State projects or state funded projects, the contractor shall abide by the minimum wage rates, employment standards, occupational classifications, etc., as issued by the State of Michigan, Department of Labor and Economic Opportunity, Wage and Hour Division.
2. The wages and fringe benefits paid to construction mechanics (excluding those under the State Civil Service Commission) by the contractor and all subcontractors must not be less than the prevailing rates in the locality where the work is performed.
  - a. Exemptions: Projects that include Federal Davis-Bacon Act wage requirements (40 USC 3141–3148)
3. **The Contractor is required to register with the Wage and Hour Division before bidding on or working on any State Project.** Registered Contractors must register all projects through The State of Michigan Wage and Hour Division, P.O. Box 30476, Lansing, MI 48909 or visit the payment website and select Project Registration. (<https://www.michigan.gov/leo/bureaus-agencies/ber/wage-and-hour/prevailing-wage>) After registering with the Wage and Hour Division, Contractors will receive instructions to access the state's certified database. The Contractor must submit certified payroll to the state with each pay request. Submit Certified Payrolls to: [leo-whcertifiedpayroll@michigan.gov](mailto:leo-whcertifiedpayroll@michigan.gov). See Instructions for completion of WH-347 Form and Instruction at the end of this section.
4. The rate schedule will remain current for the entire length of the project, providing the contract is awarded before the listed award date as noted at the top of page one of the published rates. For clarification, contact State of Michigan, Department of Labor and Economic Opportunity, Wage and Hour Division.
5. Contractor's labor rates must be submitted with each pay request using the same form submitted to the state.

### B. Federal Funded Projects

1. On all Federal projects or Federal funded projects, all employees of Contractor and any subcontractors employed under this contract shall be subject to the Federal Davis-Bacon Act. Required minimum wage rates to be paid are attached as an appendix to this section, General Decision MI20220092, dated 06/24/2022 (7 pages), as applicable for the type of work being performed. Contractor's labor rates must be submitted with each pay request. HUD Form WH 347 or another form similar with same information shall be used.

## 1.10 TIME OF COMMENCING & COMPLETION:

- A. Contractor, upon award of contract, shall begin immediately to order materials so work can begin with no delays in material deliveries.
- B. All auxiliary Sub-contractors (Electrical, Carpentry, etc.) performing work under this contract at same time that Contractor is doing work, are obligated to commence, carry on, co-ordinate and complete their work in the various stages, so that the whole job will be accomplished in a scheduled manner and so that the Prime Contractor will be able to complete his work within completion time fixed.
- C. To assure that all materials are placed on order and their delivery to site does not cause any unnecessary delays, the Prime Contractor shall submit transmittals, or copies of purchase orders, confirmations from the Sub-Contractor or the Supplier, along with delivery dates to the Architect for his records. This information shall all be submitted at same time, along with a weekly bar graph progress schedule, as prepared by the Prime Contractor. All schedules, purchase orders, etc., shall be submitted and approved by the Architect before any contract work begins.
- D. For purposes of determining the date that contract may be awarded and for ordering materials, and submittal of shop drawings, the date of **April 28, 2026** shall be used.

- E. Physical Work shall begin as soon as weather permits starting **06-15-2026** so that the completion date is achieved. On site storage of materials before this date will only be allowed in a locked trailer at Contractor's expense and with Owner's advanced approval.
- F. All work on this project shall be "**Substantially Completed**" on or before **08-14-2026, at 5:00 P.M.**, or sooner as stated in the bid proposal by the bidder. See this Division regarding Liquidated Damages. All work, including punch lists, paper work, etc., as described for receiving final payment and termed "Final Completion" shall occur within thirty (30) consecutive days after the "Substantial Completion" date. (See Liquidated Damages Section for damages should dates not be met.)
- G. The above dates/schedules are based on current delivery of equipment, estimated man-hours, and anticipated weather conditions for the scope of work. Contractors shall verify availability of all materials during the bidding process and list on the bid proposal the manufacturers of equipment that will not conform to this schedule. Should the equipment manufacturers as specified, not fit the anticipated schedule, list other equal equipment in area provided on bid proposal for substitutions, along with any cost changes for the Owner's consideration

**1.11 HAZARDOUS MATERIAL:**

- A. If any Contractor during the course of construction, or work, observes the existence of asbestos, lead base paint, P.C.B., or other hazardous materials in the structure or building, or in area of work, the Contractor shall promptly notify the Owner. The Owner shall consult with their environmental consultant regarding removal or encapsulation of the questioned material. The Contractor shall not perform any work pertinent to the hazardous material prior to receipt of special instructions from the Owner. Any work involved with hazardous material removal, handling, etc., shall NOT be part of this Contract or any Field Orders relating to this Contract.
- B. On this particular job and in the area of work, or related area that may be affected due to this work, certain hazardous materials may exist and if known will be properly identified or made known to the Contractor by the Owner. It is the Contractor's responsibility to exercise care in performing all operations of this work to not disturb or affect these materials, either directly, or in-directly (such as water damage, materials dropped, etc.). If an incident should occur, the Contractor shall immediately notify the Owner and his insurance company and safeguard the area. The Owner will make an inspection and advise of all procedures to be implemented. It is the Owner's responsibilities to contact their hazardous material consultant and perform all work to test, remedy and enclose the situation, all at the Contractor's expense. The cost will be deducted from the contract amount, or the Contractor's insurance company will reimburse the Owner directly.
- C. The Architect shall have no responsibility for the discovery, presence, handling, removal, or disposal of, or exposure of persons to asbestos and hazardous materials in any form for the project.
- D. The Contractor shall inform himself of the presence of asbestos/hazardous materials which may be present in the buildings by reviewing the Owner's copy of the A.H.E.R.A. Management Act (Asbestos Hazards Emergency Response Act), which is available in each building, or by contacting the Owner.
- E. The Contractor shall be responsible to inform all workers of all known hazardous materials present at the job site prior to starting any work and instruct each worker on the proper safeguards required, so as not to disrupt any encapsulated or contained hazardous materials.

**1.12 SALVAGEABLE ITEMS:**

- A. All existing items called for to be removed, or are abandoned, or are in the way of this new work, shall be completely removed and disposed of offsite at a licensed disposal facility by this Contractor unless noted differently.
- B. See related Divisions - 024100 - Demolition, Mechanical and Electrical Divisions.

### 1.13 LIQUIDATED DAMAGES & COMPLETION OF WORK:

- A. It is hereby understood and mutually agreed, between the Contractor and the Owner that the date of completion, as specified in the Proposal, is an essential condition of this Contract, and that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and prevailing industrial conditions.
- B. If the Contractor shall fail, neglect or refuse to **SUBSTANTIALLY COMPLETE** the work within the time herein specified, or within any proper extension thereof granted by the Owner, the Contractor does hereby agree, as a part of the consideration for awarding this contract, to pay to the Owner the amount specified herein as Class A liquidated damages for each and every calendar day that the Contractor shall be in default after the time stipulated for SUBSTANTIAL COMPLETION of the work. The amount of Class A liquidated damages shall be deducted from the estimated amounts coming due and payable to the Contractor at the rate of **\$1,000** per day, after the date as specified in the special conditions for SUBSTANTIAL COMPLETION.
- C. If the Contractor shall neglect, fail, or refuse to obtain **FINAL COMPLETION** of the contract and final acceptance of the project by the Owner within the time herein specified, or with any proper extension thereof granted by the Owner, then the Contractor does hereby agree, a part of the consideration for awarding this contract, to pay to the Owner the amount specified in the proposal as Class B liquidated damages for each and every calendar day that the Contractor shall be in default after the time stipulated for FINAL COMPLETION and acceptance of the project by the Owner. The amount of Class B liquidated damages shall be deducted from the estimated amounts coming due and payable to the Contractor at the rate of **\$100** per day, after the date as stated in the special conditions for FINAL COMPLETION and acceptance of the project by the Owner.
- D. In the case where the contract includes work at several sites/buildings, the Class A and Class B liquidated damages noted above will apply to each site/building not completed.
- E. The Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault due to unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including but not restricted to acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather.
- F. Request for the extension of time for completion beyond the completion date noted in the Invitation to Bid may be requested in writing of the Owner by the Contractor. Such request to be considered must show reasons beyond the control of the Contractor. All requests shall be submitted within five (5) days of when problem becomes known to the Contractor.

### 1.14 TEMPORARY FACILITIES:

- A. Enclosures - Contractor is responsible for any damage to all materials, stored or built into this work under this contract, due to elements of the weather, vandalism, theft, fire, etc. No open areas of work shall be left open during non-working hours or inclement weather. Contractor is responsible for all damages caused due to this contract, to all materials, whether existing or incorporated into this work.
- B. Storage - Each Contractor shall erect a materials storage shed, properly covered, locked, etc., as required. Contractor is responsible for stored materials. Stolen, damaged or destroyed materials shall be replaced at the Contractor's expense. No inside of building storage of materials is allowed before the date noted herein as start of physical work. No inside storage is allowed after construction starts unless it is in the area of work governed by this contract and is under the Contractor's full control and contract limits.
- C. Field Office - None Required
- D. Toilet Facilities - Workmen will be allowed to use existing facilities. Contractor shall be responsible for maintaining and keeping areas clean.

- E. Miscellaneous - Contractor shall provide all temporary drainage, drains, sumps, walkways, railings, etc., as required for proper execution of work and as required to meet all codes and ordinances.
- F. Debris Removal - All debris resulting from this work shall be cleaned up at end of each day's work and hauled away from job upon completion to a licensed disposal site. Prime Contractor shall provide a dumpster as required for use by all Sub-Contractors and pay for all usage/dump charges.
- G. Removal - Temporary facilities shall be removed when no longer required, or at completion and site restored to original condition.
- H. Exits - Provide temporary ladders, railings, etc., as required for emergency use during construction. Proper exiting of building shall be maintained at all times.
- I. Temporary Heat - Contractor shall provide and maintain all temporary heating and ventilating units during construction as required to properly execute this contract. All fuels used shall be paid for by the Contractor. (No electric units)
- J. Barricades - Provide all necessary barricades, fencing, flagmen, etc., to properly control and assure the safety of workers and the public during this work.
- K. Water - The Prime Contractor shall make suitable connections as required to perform the work. Water to be available at site as provided by the Owner.
- L. Electrical - The Contractor shall make suitable connections as required to perform the work. Electricity will be available on the site as furnished and paid for by the Owner. See Electrical Division for other requirements.
- M. Telephones - Contractor can use on-site pay telephones if available. Contractor is not to use Owner's general telephones.
- N. Fencing - Prime Contractor is to secure the contract limits of this work with snow type fencing or better as needed to secure the construction site off limits to unauthorized people. Safety to staff, students and public is of utmost importance. All ladders, scaffolding, doors, windows, entries, and other attractive/inviting items, shall be secured during non-working hours.
- O. Temporary Fire Barriers - In student occupied buildings, temporary fire rated doors/barriers are to be installed when the students are scheduled to occupy the building and construction is not complete.
- P. Road Maintenance - Contractor shall keep the Owner's roads free of construction spillages and debris at all times. Repair damage caused to these roads by contract-related construction vehicles by replacing damaged pavement and curbing to match existing construction.  
Construct and maintain temporary earth ramps for access and egress of heavy construction and delivery vehicles to below grade (excavated) areas of the construction site.
- Q. Parking - Contractor may use designated areas of Owner's parking facilities for passenger vehicles only. Heavy construction equipment will not be permitted on Owner's parking facilities. Maintain and repair any damage caused by use of Owner's parking facilities. Maintain parking area for construction vehicles as designated by the Owner.

**1.15 OWNER'S WORK & SCHEDULES:**

- A. Owner shall be responsible for removing his equipment and materials from the contract area in sufficient time before the Contractor's work is to begin.
- B. Contractor shall assume that the site and building will be occupied by staff/students during the time of construction. Precautions concerning the safety of occupants shall be exercised at all times.
- C. The Owner reserves the right to award contracts for the work on the same project, or perform work with own personnel. Complete cooperation shall exist between all parties.

- D. Unavoidable shutdowns for purposes of extension of existing utilities (water, electric, etc.), or installation of temporary or permanent work shall be scheduled 48 hours in advance and at the convenience of the Owner during off-use hours.
- E. The Owner reserves the right to make emergency repairs, as required to keep equipment in operation without voiding the Contractor's guarantee bond, nor relieving the Contractor of his responsibilities during the bonding period.
- F. Since students and staff will be occupying the site and building, specific areas for Contractor parking, storage, building access, etc., must be coordinated with Owner. Contractor shall install snow type fences to secure these and construction areas.
- G. Hours of work by this Contractor/Sub-Contractor(s) shall occur between 7:30 A.M. to 4:00 P.M., Monday through Friday. The Owner will be responsible to have the building and site open and closed at times so noted.
- H. Should the Contractor desire times other than those listed above for interior work, the Contractor shall submit a written request to the Owner for consideration and approval forty-eight (48) hours in advance, in order to change the scheduling of their custodial staff and the opening/closing of the building(s)/sites(s). Should this special request be granted by the Owner, the Contractor shall accept and pay the additional costs incurred by the Owner at the rate of \$60 per opening and \$60 per closing of the building/site. This cost will be treated as a Change Order and deducted from the contract cost.

**1.16 MISCELLANEOUS COSTS:**

- A. The Prime Contractor shall secure and pay for the building permit from the Governing Building Authority, based on the work of all Contractors, along with all costs for inspections, plan review fees, approvals, etc. Sub-contractors shall secure same related permits as required by code. Upon completion, submit all occupancy permits, approvals, etc. It is the Prime Contractor's responsibility to pick up all costs and coordinate the Sub-permits, should the Sub-Contractors under his control fail to do so. All permits, including electrical/mechanical, shall be secured from the State of Michigan. Contact the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes and Fire Safety, Plan Review Division, P.O. Box 30255, Lansing, MI 48909 (517-241-9328).
- B. The Prime Contractor shall retain the services of an Approved Third-Party Agency to perform all Special Inspections and Testing as required by the Governing Building Code, Governing Building Authority, or as called out in the construction documents. Notify Owner / Architect, immediately, of any failed tests or inspections and provide Owner with all written reports and test results at project completion. See "Special Inspections" in the Governing Building Code for requirements.
- C. Contractor, Sub-Contractor and Supplier shall include in his bid and contract price any Michigan sales and use taxes, currently imposed by legislative enactment.
- D. Electric - the Electrical Contractor shall be responsible and include all power company's back-charge and utility company's work in the bid for all secondary and primary wiring, poles, transformers, meter, meter socket, etc. For either temporary or final service the Prime Contractor shall be responsible for all usage bills, until acceptance by the Owner, or substantial completion.
- E. Electrical Contractor to be responsible for labor and materials for final hook-up of all electrical equipment as supplied under Electrical Division, Mechanical Division, or Equipment Division as furnished by Prime Contractor, unless noted otherwise in specific Divisions, such as overhead door operators. Included are kitchen appliances, lights, fans, motors, etc.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

\* SAMPLE \*



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
**DATE**

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> <u>Agent</u> : Name Address Phone Number Contact Person	<b>CONTACT NAME:</b> _____ <b>PHONE (A/C, No, Ext):</b> _____ <b>FAX (A/C, No):</b> _____ <b>E-MAIL ADDRESS:</b> _____													
	<table border="1"> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: <u>List Company for each coverage</u></td> <td></td> </tr> <tr> <td>INSURER B: _____</td> <td></td> </tr> <tr> <td>INSURER C: _____</td> <td></td> </tr> <tr> <td>INSURER D: _____</td> <td></td> </tr> <tr> <td>INSURER E: _____</td> <td></td> </tr> <tr> <td>INSURER F: _____</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: <u>List Company for each coverage</u>		INSURER B: _____		INSURER C: _____		INSURER D: _____		INSURER E: _____		INSURER F: _____
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INSURER C: _____														
INSURER D: _____														
INSURER E: _____														
INSURER F: _____														
<b>INSURED</b> <u>Contractor</u> : Name Address Phone Number Contact Person														

**COVERAGES**                      **CERTIFICATE NUMBER:**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC		List #	List Dates →		EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS		List #	→		COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED _____ RETENTION \$ _____					EACH OCCURRENCE \$ AGGREGATE \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A	List #	→		WC STATUTORY LIMITS _____ OTH-ER _____ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
	<b>Installation Floater Business Risk</b>		List #	→		Site Amt — stored Transit — or install Total _____

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
Owner + Architect as additional insured with respect to general liability.  
List actual names (add any attachments)

<b>CERTIFICATE HOLDER</b> <u>Owner</u> : Name Mailing Address <u>NOT Job or Architect</u>	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Signature of Agent
--	--

Project Name  
Client

**Type on contractor's letterhead  
with complete address, phone  
numbers, federal and state ID#**

**LETTER OF WARRANTY**

**Re: List here Owner's name  
and project description  
as listed on Architect's  
Project Manual**

Date:

We hereby warrant that the work, described as \_\_\_\_\_, which we have completed at the above mentioned project, has been done in strict accordance with the drawings and specifications and that the work installed will fulfill the requirements of those specifications. We agree to repair or replace or cause to be repaired or replace any or all of work which may prove to be defective in workmanship or materials, together with any adjacent work which requires repair or replacement because of our defective work, within a period of \_\_\_\_\_ year(s) from date of Certificate of Occupancy or date of final payment by the Owner, whichever is later, ordinary wear and tear and unusual abuse or neglect excepted.

If we fail to commence to comply with the above paragraph within 10 days after receipt of written notice from the Owner to do so or fail to pursue such compliance with diligence, we, jointly and severally, do hereby authorize the Owner to proceed to have the defects repaired and made good at our sole expense, and we will honor and pay the costs and charges for it together with interest at the maximum rate permitted by law upon demand. If we fail to fulfill the preceding obligations, and if the Owner brings an action to enforce this warranty, we agree to pay the Owner's reasonable architect's, attorneys and staff fees incurred in connection therewith.

This guarantee does not limit the requirements for liability and responsibility as covered by the State of Michigan Statute of Limitations, or equipment and manufactured items, which have extended warranties.

\_\_\_\_\_  
**Signed**

\_\_\_\_\_  
**Printed Name / Title**

**List bonding company, address,  
phone number, as well as the  
local bonding agent with same  
information.**

**SECTION 012500  
SUBSTITUTION PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedural requirements for proposed substitutions.

**1.02 DEFINITIONS**

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.

The proposal shall be based ONLY upon the furnishing of all materials and/or equipment and accessories as specified by manufacturer or trade names throughout the various specification headings. Where the phrase "approved substitute" and/or "approved equal" appears, the Contractor may, if he desires, request approval from the Owner and Architect. The acceptance of such substitutes, which the Architect and Owner believe to be in the Owner's best interests, will be made prior to bid opening. If no such substitutions are accepted at that time, the Contractor shall furnish only those materials and/or equipment specifically named. Contractor shall submit all pertinent data, manufacturer's specifications, picture cuts, etc., as required by the Architect/Owner for proper evaluation.

1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
  - a. Unavailability.
  - b. Regulatory changes.
2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
  - a. Substitution requests offering advantages solely to the Contractor will not be considered.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 GENERAL REQUIREMENTS**

- A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
  2. Agrees to provide the same warranty for the substitution as for the specified product.
  3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
  4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
  5. Waives claims for additional costs or time extension that may subsequently become apparent.
  6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
1. Note explicitly any non-compliant characteristics.
- C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
1. No specific form is required. Contractor's Substitution Request documentation must include the following:
    - a. Project Information:

- 1) Official project name and number, and any additional required identifiers established in Contract Documents.
  - 2) Owner's, Architect's, and Contractor's names.
  - b. Substitution Request Information:
    - 1) Indication of whether the substitution is for cause or convenience.
    - 2) Issue date.
    - 3) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
    - 4) Description of Substitution.
    - 5) Reason why the specified item cannot be provided.
    - 6) Differences between proposed substitution and specified item.
    - 7) Description of how proposed substitution affects other parts of work.
  - c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
    - 1) Physical characteristics.
    - 2) In-service performance.
    - 3) Expected durability.
    - 4) Visual effect.
    - 5) Warranties.
    - 6) Other salient features and requirements.
    - 7) Include, as appropriate or requested, the following types of documentation:
      - (a) Product Data:
      - (b) Samples.
      - (c) Certificates, test, reports or similar qualification data.
      - (d) Drawings, when required to show impact on adjacent construction elements.
  - d. Impact of Substitution:
    - 1) Savings to Owner for accepting substitution.
    - 2) Change to Contract Time due to accepting substitution.
- D. Limit each request to a single proposed substitution item.
1. Submit an electronic document, combining the request form with supporting data into single document.

### **3.02 SUBSTITUTION PROCEDURES DURING PROCUREMENT**

- A. Submittal Time Restrictions:
1. Owner will consider requests for substitutions only if submitted at least 10 days prior to the date for receipt of bids.

### **3.03 SUBSTITUTION PROCEDURES DURING CONSTRUCTION**

- A. Submit request for Substitution for Cause within 14 days of discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
- B. Submit request for Substitution for Convenience immediately upon discovery of its potential advantage to the project, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
1. In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
  2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
  3. Bear the costs engendered by proposed substitution of:
    - a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.
    - b. Other construction by Owner.

- c. Other unanticipated project considerations.
- C. Substitutions will not be considered under one or more of the following circumstances:
  - 1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
  - 2. Without a separate written request.
  - 3. When acceptance will require revisions to Contract Documents.

#### **3.04 RESOLUTION**

- A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
- B. Architect will notify Contractor in writing of decision to accept or reject request.
  - 1. Architect's decision following review of proposed substitution will be noted on the submitted form.

#### **3.05 ACCEPTANCE**

- A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

**END OF SECTION**

**SECTION 013000  
ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General administrative requirements.
- B. Electronic document submittal.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Construction progress schedule.
- F. Daily Construction Reports
- G. Progress photographs.
- H. Submittals for payment.
- I. Requests for Interpretation (RFI) procedures.
- J. Worker's Qualification Submittals.
- K. Submittal procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements: General product requirements.

**1.03 GENERAL ADMINISTRATIVE REQUIREMENTS**

- A. Comply with requirements of Section 017000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 ELECTRONIC DOCUMENT SUBMITTAL**

- A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF, MS Word, or MS Excel) format, as appropriate to the document, and transmitted via email.
  - 1. Besides submittals for review, information, and closeout, this procedure applies to Requests for Interpretation (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.
  - 2. It is Contractor's responsibility to submit documents in allowable format.
  - 3. Contractor, Subcontractors, Suppliers, Owner, Architect, Architect's consultants, and any others who are part of the Electronic Document Submittal process are to follow this process.
  - 4. Users of the service need an email address, internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, [www.adobe.com](http://www.adobe.com), or Bluebeam PDF Revu, [www.bluebeam.com](http://www.bluebeam.com)).
  - 5. Paper document transmittals will not be reviewed.
  - 6. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.
- B. Cost: Any cost for this submittal process is to be covered by each user.

**3.02 PRECONSTRUCTION MEETING**

- A. Architect will schedule a meeting after Notice of Award to review all schedules, purchase orders, and details of the work. This must be done before any physical work begins - estimated

time is 2-3 weeks after contract award. Invited to attend are the Prime Contractors, Owner's Representatives and the Architect/Engineer. Also, the Contractor shall have present, his Foreman, or Superintendent who will be in charge of the job and any Sub-Contractors that are deemed major contributions to the work.

- B. Agenda:
1. Execution of Owner-Contractor Agreement.
  2. Submission of executed bonds and insurance certificates.
  3. Distribution of Contract Documents.
  4. Designation of personnel representing the parties to Contract.
  5. Contractor to have the following information for distribution at this meeting:
    - a. Progress Schedule - Weekly bar graph of the anticipated progress of work.
    - b. List of all Suppliers, Sub-Contractors, with phone numbers and addresses.
    - c. Schedule of Payment Values
    - d. List of all shop drawings to be submitted. Include spec data sheets, color samples, picture cuts, samples, etc. (See Shop Drawing Schedule at end of Instructions to Bidders.)
    - e. Copies of purchase orders and written confirmation from Supplier/Sub-Contractor.
    - f. Permit applications, or copies of permits, or submit a written letter to the Architect with date, inspector's name and phone number from the Governing Building Authority stating that permits will not be required.
  6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
- C. Architect will record minutes and distribute copies within two days after meeting to participants, Contractor, Owner, participants, and those affected by decisions made.

### **3.03 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the work at maximum weekly intervals.
- B. Attendance Required:
1. Contractor.
  2. Owner.
  3. Architect.
  4. Contractor's superintendent.
  5. Major subcontractors.
- C. Agenda:
1. Review minutes of previous meetings.
  2. Review of work progress.
  3. Field observations, problems, and decisions.
  4. Identification of problems that impede, or will impede, planned progress.
  5. Review of submittals schedule and status of submittals.
  6. Review of RFIs log and status of responses.
  7. Review of off-site fabrication and delivery schedules.
  8. Maintenance of progress schedule.
  9. Corrective measures to regain projected schedules.
  10. Planned progress during succeeding work period.
  11. Maintenance of quality and work standards.
  12. Effect of proposed changes on progress schedule and coordination.
  13. Other business relating to work.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

### **3.04 CONSTRUCTION PROGRESS SCHEDULE**

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
  - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.

### **3.05 DAILY CONSTRUCTION REPORTS**

- A. Include only factual information. Do not include personal remarks or opinions regarding operations and/or personnel.
- B. In addition to transmitting electronically at daily interval to Owner and Architect, submit electronically with pay app at monthly intervals.
  - 1. Field reports may be handwritten, scanned, and sent in .pdf format; or from electronic project management software (i.e. Raken, FieldLens, or others).
- C. Prepare a daily construction report recording the following information concerning events at Project site and project progress:
  - 1. Date.
  - 2. High and low temperatures, and general weather conditions.
  - 3. List of subcontractors at Project site.
  - 4. List of separate contractors at Project site.
  - 5. Approximate count of personnel at Project site.
    - a. Include a breakdown for supervisors, laborers, journeymen, equipment operators, and helpers.
  - 6. Material deliveries.
  - 7. Safety, environmental, or industrial relations incidents.
  - 8. Meetings and significant decisions.
  - 9. Stoppages, delays, shortages, and losses. Include comparison between scheduled work activities (in Contractor's most recently updated and published schedule) and actual activities. Explain differences, if any. Note days or periods when no work was in progress and explain the reasons why.
  - 10. Directives and requests of Authority(s) Having Jurisdiction (AHJ).
  - 11. Testing and/or inspections performed.
  - 12. List of verbal instruction given by Owner and/or Architect.
  - 13. Signature of Contractor's authorized representative.
  - 14. Progress Photographs

### **3.06 PROGRESS PHOTOGRAPHS**

- A. Maintain one set of all photographs at project site for reference; same copies as submitted, identified as such.
- B. Photography Type: Digital; electronic files.
- C. In addition to periodic, recurring views, take photographs of each of the following events:
  - 1. Completion of site clearing.
  - 2. Excavations in progress.
  - 3. Foundations in progress and upon completion.
  - 4. Structural framing in progress and upon completion.
  - 5. Enclosure of building, upon completion.
  - 6. Final completion, minimum of ten (10) photos.

- D. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
  - 1. Delivery Medium: Via email.
  - 2. File Naming: Include project identification, date and time of view, and view identification.
  - 3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.
  - 4. Photo CD(s): Provide 1 copy including all photos cumulative to date and PDF file(s), with files organized in separate folders by submittal date.

### **3.07 REQUESTS FOR INTERPRETATION (RFI)**

- A. Definition: A request seeking one of the following:
  - 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
  - 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
  - 1. Prepare a separate RFI for each specific item.
  - 2. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
  - 1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
  - 2. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
    - a. Approval of submittals (use procedures specified elsewhere in this section).
    - b. Approval of substitutions (see Section - 016000 - Product Requirements)
    - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
    - d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
  - 3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
  - 4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
    - a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.
- E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
  - 1. Official Project name and number, and any additional required identifiers established in Contract Documents.
  - 2. Owner's, Architect's, and Contractor's names.
  - 3. Discrete and consecutive RFI number, and descriptive subject/title.
  - 4. Issue date, and requested reply date.

5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
  6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
  7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.
- F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
1. Indicate current status of every RFI. Update log promptly and on a regular basis.
  2. Note dates of when each request is made, and when a response is received.
  3. Highlight items requiring priority or expedited response.
  4. Highlight items for which a timely response has not been received to date.
- H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
- I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
  2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
  3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
  4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

### **3.08 SUBMITTAL SCHEDULE**

- A. Submit to Architect for review a schedule for submittals in tabular format.
1. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
  2. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
    - a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

### **3.09 SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for review:
1. Product data.
  2. Shop drawings.
  3. Samples for selection.

4. Samples for verification.
- B. All must be submitted and reviewed prior to ordering that particular item and starting any physical work on the job site unless other arrangements are made with the Architect in advance:
- C. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- D. Samples will be reviewed for aesthetic, color, or finish selection.
- E. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017800 - Closeout Submittals.
- F. Architect's Action - Architect will acknowledge receipt, review each submittal, and process one of the following ways: No Exception Taken, Reviewed as Noted, Revise / Resubmit, Not Reviewed, Request More Information, or take other appropriate action.

### **3.10 SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit them for information:
  1. Design data.
  2. Certificates.
  3. Test reports.
  4. Inspection reports.
  5. Manufacturer's instructions.
  6. Manufacturer's field reports.
  7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner.
- C. Architect's Action - Architect will acknowledge receipt, review each submittal, and process one of the following ways: No Exception Taken, Reviewed as Noted, Revise / Resubmit, Not Reviewed, Request More Information, or take other appropriate action.

### **3.11 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
  1. Project record documents.
  2. Operation and maintenance data.
  3. Warranties.
  4. Bonds.
  5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

### **3.12 PAY REQUEST SUBMITALS**

- A. Contractor shall file electronic (.pdf) applications for monthly payment installments with the Architect in accordance with the requirements of the General Conditions if a 100% Performance/Labor and Material Bond is a part of this contract. Otherwise no payment shall be made until completion of the work.
- B. Submitted with the first application for payment, the Contractor shall file with the Architect, for his approval, a schedule of values for the various parts of the work aggregating the contract sum. Schedule shall be in such form and in sufficient detail to facilitate issuance of certificates of payment. Schedule shall become the basis for payments and shall accompany all remaining applications for payments.

- C. Pay Request Submittals - Must be submitted to the Architect (1) week before it goes to Owner. Owner needs (20) days for processing and issuing check. Note any special dates that request for payments must be received by Owner. Otherwise dates will be established at the pre-construction meeting.
1. AIA Form G-702, signed and notarized.
  2. AIA Form G-703, complete with line item breakdowns for General Conditions, Architectural Trades, Mechanical, Electrical, etc.
  3. Waiver of Lien from Contractor, each Sub-Contractor, each Major Material Supplier for preceding pay request.
  4. Contractors Sworn statement. (See sample Statement at the end of this section. This sample statement is available from architect in electronic format. Any other Sworn statement form shall include, at least, the column information shown on sample.)
  5. Labor/Payroll Forms from Contractor and each Sub-Contractor listing each Worker's name, address, social security number, trade classification, rate of pay, hours and week worked. HUD Form WH 347, or Certified Payroll Form is acceptable. Must be signed. This is applicable only if a State Prevailing Wage or Federal Wage Rate Project.
  6. Daily Field Reports since previous pay application.
  7. Progress Photographs since previous pay application.
- D. Final Pay Request shall include the above items, plus the following items:
1. Final Waivers of Lien from Contractor, all Sub-Contractors, all Major Material Suppliers
  2. Contractor's Affidavit of Payment of Debts and Claims, AIA Form G706
  3. Consent of Surety Company to Final Payment, AIA Form G707
  4. Contractor's written Warranty per 007400 - Supplementary and Special Conditions from the date of Final Payment.
  5. All written Warranties per Section 007400 - Supplementary and Special Conditions of Specifications from Manufacturer's Components/Systems, as noted in other Divisions of these Specifications.
  6. "As-Built" Drawings, showing any changes from bidding drawings. Including "site survey" verifying all grades, dimensioning locations of all U.G. valves, clean-outs, taps, etc. per requirements listed elsewhere.
  7. Final Approval Certificates from the Governing Building Officials on all Construction Permits obtained, and/or required.
  8. Copies of all Maintenance Manuals/Procedures from the Manufacturers of all Pre-Manufactured Components/Systems, plus (1) complete set of all Shop Drawings for project.
  9. List containing all Sub-Contractors, their Suppliers and related products with names, address, contact person and phone numbers.
- E. Architect's Action - Architect will acknowledge receipt, review each submittal, and process one of the following ways: Process with owner copying contractor, Hold and notify contractor of items needing correction, Reject and notify contractor of reason(s), or take other appropriate action.

### **3.13 WORKER'S QUALIFICATION SUBMITTALS**

- A. Must be submitted electronically within two (2) weeks after receiving notice to proceed. This includes Prime Contractor and all major Sub-Contractors.
1. List with each worker's name, address, social security number, trade classification, years of trade experience and years employed by Contractor. See other Divisions of these specifications that may set ratios of apprentices to journeymen.
  2. Conviction Disclosure Form, (copy attached at the end of this Division) and a copy of their driver's license or legal photo I.D. for each worker on the construction site with the name and signature of each worker.
- B. Architect's Action - Architect will acknowledge receipt, review each submittal, and process one of the following ways: Process with owner copying contractor, Hold and notify contractor of

items needing correction, Reject and notify contractor of reason(s), or take other appropriate action.

### 3.14 SUBMITTAL PROCEDURES

#### A. General Requirements:

1. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
2. Transmit using approved form.
  - a. Use form generated by Electronic Document Submittal Service software. If Electronic Document Submittal Service is not used for this project, use Contractor's form, subject to prior approval by Architect.
3. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
4. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
5. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
  - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
6. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
  - a. Send submittals in electronic format via email to Architect.
7. Schedule submittals to expedite the Project, and coordinate submission of related items.
  - a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
  - b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
  - c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days.
8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
9. Provide space for Contractor and Architect review stamps.
10. When revised for resubmission, identify all changes made since previous submission.
11. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
12. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
13. Submittals not requested will be recognized, and will be returned "Not Reviewed",

#### B. Product Data Procedures:

1. Submit only information required by individual specification sections.
2. Collect required information into a single submittal.
3. Submit concurrently with related shop drawing submittal.
4. Do not submit (Material) Safety Data Sheets for materials or products.

#### C. Shop Drawing Procedures:

1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
2. Do not reproduce Contract Documents to create shop drawings.
3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
4. At a minimum, shop drawings shall:
  - a. Convey the contractor's understanding of the work to be performed meets the design intent and contract documents.

- b. Coordinate material/equipment options (i.e. finish/color selections, power requirements, etc.).
  - c. Include any information needed by other trades for a complete coordination of the work to be provided.
- D. Samples Procedures:
- 1. Transmit related items together as single package.
  - 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.
  - 3. Include with transmittal high-resolution image files of samples to facilitate electronic review and approval. Provide separate submittal page for each item image.

**END OF SECTION**

Name of Project \_\_\_\_\_  
 Project Address \_\_\_\_\_  
 Client \_\_\_\_\_  
 Client Address \_\_\_\_\_  
 Arch. Project # \_\_\_\_\_

Date: \_\_\_\_\_  
 Page 1 of 4

### SWORN STATEMENT

STATE OF MICHIGAN ) SS:  
 COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, *[name of person swearing statement]*, being duly sworn, states the following:

\_\_\_\_\_, *[name of contractor]* is the contractor for an improvement to the following real property in \_\_\_\_\_ County, Michigan, described as follows: *[Give the legal description of the property.]*

The following is a statement of each subcontractor, supplier and laborer for whom payment of wages or fringe benefits and withholdings is due but unpaid with whom the contractor has contracted for performance under the contract with the owner or lessee, and the amounts due to the persons as of the date of this statement are correctly and fully set forth opposite their names:

Name, Address & Phone No. of Subcontractor, Supplier or Laborer	Type of Improvement Furnished	Total Contract Price	Change Orders	Adjusted Contract Price	Subcontractor Paid to Date	Current Request	Retainage	Balance to Complete
<b>TOTALS:</b>								

*[NOTE: It is not necessary to list any materials furnished by the contractor / subcontractor out of his/her own inventory, and which have not been purchased specifically for performing the contract.]*

The contractor has not procured materials from, or subcontracted with, any person other than those set forth above, and owes no money for the improvement other than the sums set forth above.

I make this statement as the contractor or as \_\_\_\_\_ *[capacity]* of the contractor to represent to the owner or lessee of the property and his/her agents that the property is free from claims of construction liens, or the possibility of construction liens, except as specifically set forth in this statement and except for claims of construction liens by laborers that may be provided under Section 109 of the Construction Lien Act, 1980 PA 497, MCL 570.1109.

Name of Project \_\_\_\_\_  
Project Address \_\_\_\_\_  
Client \_\_\_\_\_  
Client Address \_\_\_\_\_  
Arch. Project # \_\_\_\_\_

Date: \_\_\_\_\_  
Page 2 of 4

## SWORN STATEMENT

**WARNING TO OWNER OR LESSEE: AN OWNER OR LESSEE OF THE PROPERTY MAY NOT RELY ON THIS SWORN STATEMENT TO AVOID THE CLAIM OF A SUBCONTRACTOR, SUPPLIER OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR A LABORER WHO MAY PROVIDE A NOTICE OF FURNISHING UNDER SECTION 109 OF THE CONSTRUCTION LIEN ACT, 1980 PA 497, MCL 570.1109 TO THE DESIGNEE OR TO THE OWNER OR LESSEE IF THE DESIGNEE IS NOT NAMED OR HAS DIED.**

**IF THIS SWORN STATEMENT IS IN REGARD TO A RESIDENTIAL STRUCTURE, ON RECEIPT OF THIS SWORN STATEMENT, THE OWNER OR LESSEE, OR THE OWNER'S OR LESSEE'S DESIGNEE MUST GIVE NOTICE OF ITS RECEIPT, EITHER IN WRITING, OR BY TELEPHONE, OR PERSONALLY, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING UNDER SECTION 109 OR, IF A NOTICE OF FURNISHING IS EXCUSED UNDER SECTION 108 OR 108A, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER NAMED IN THE SWORN STATEMENT. IF A SUBCONTRACTOR, SUPPLIER, OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR WHO IS NAMED IN THE SWORN STATEMENT MAKES A REQUEST, THE OWNER, LESSEE, OR DESIGNEE SHALL PROVIDE THE REQUESTER A COPY OF THE SWORN STATEMENT WITHIN 10 BUSINESS DAYS AFTER RECEIVING THE REQUEST.**

\_\_\_\_\_  
Signature of Deponent

\_\_\_\_\_  
Print Name

**WARNING TO DEPONENT: A PERSON WHO GIVES A FALSE SWORN STATEMENT WITH INTENT TO DEFRAUD IS SUBJECT TO CRIMINAL PENALTIES AS PROVIDED IN SECTION 110 OF THE CONSTRUCTION LIEN ACT, 1980 PA 497, MCL 570.1110.**

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

\_\_\_\_\_  
Notary Public, \_\_\_\_\_ County, \_\_\_\_\_ State  
Print Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Name of Project \_\_\_\_\_  
Project Address \_\_\_\_\_  
Client \_\_\_\_\_  
Client Address \_\_\_\_\_  
Arch. Project # \_\_\_\_\_

Date: \_\_\_\_\_  
Page 3 of 4

## SWORN STATEMENT

**570.1110 Sworn statement by contractor or subcontractor; contents; form; notice of receipt; withholding from contractor or subcontractor amount due subcontractors, suppliers, laborers, or lien claimants; direct payments to lien claimants; notice; itemized statement; reliance on sworn statement to avoid claim; failure of contractor or subcontractor to provide sworn statement to owner or lessee prior to recording claim of lien; giving false sworn statement to owner or lessee as crime; total amount; prior convictions; prohibited use.**

Sec. 110.

(1) A contractor shall provide a sworn statement to the owner or lessee in each of the following circumstances:

(a) When payment is due to the contractor from the owner or lessee or when the contractor requests payment from the owner or lessee.

(b) When a demand for the sworn statement has been made by or on behalf of the owner or lessee.

(2) A subcontractor shall provide a sworn statement to the owner or lessee when a demand for the sworn statement has been made by or on behalf of the owner or lessee and, if applicable, the owner or lessee has complied with the requirements of subsection (6).

(3) A subcontractor shall provide a sworn statement to the contractor when payment is due to the subcontractor from the contractor or when the subcontractor requests payment from the contractor.

(4) A sworn statement shall list each subcontractor and supplier with whom the person issuing the sworn statement has contracted relative to the improvement to the real property. The sworn statement shall contain a list of laborers with whom the person issuing the sworn statement has contracted relative to the improvement to the real property and for whom payment for wages or fringe benefits and withholdings are due but unpaid and the itemized amount of such wages or fringe benefits and withholdings.

(5) The contractor or subcontractor is not required to list in the sworn statement material furnished by the contractor or subcontractor out of his or her own inventory that was not purchased specifically for performing the contract.

(6) On receipt of a sworn statement regarding an improvement to a residential structure, the owner, lessee, or designee shall give notice of its receipt, either in writing, by telephone, or personally, to each subcontractor, supplier, and laborer who has provided a notice of furnishing under section 109 or, if a notice of furnishing is excused under section 108 or 108a, to each subcontractor, supplier, and laborer named in the sworn statement. If a subcontractor, supplier, or laborer entitled to notice under this subsection requests a copy of the sworn statement, the owner, lessee, or designee shall provide the requester a copy within 10 business days after receiving the request.

(7) After the contractor or subcontractor provides the sworn statement, the owner or lessee may withhold or, upon written demand from the contractor, shall withhold from the amount due or to become due to the contractor or to the subcontractor for work already performed an amount sufficient to pay all sums due to subcontractors, suppliers, or laborers, as shown by the sworn statement, or due to lien claimants who have provided a notice of furnishing under section 109. From the amount withheld, the owner or lessee may directly pay subcontractors, suppliers, or laborers the amount they are due as shown by the sworn statement. If the contract provides for payments by the owner to the general contractor in the normal course of construction, but the owner elects to pay lien claimants directly under this section, the first time the owner elects to make payment directly to a lien claimant, he or she shall provide at least 5 business days' notice to the general contractor of the intention to make direct payment. Subsequent direct disbursements to lien claimants need not be preceded by the 5-day notice provided in this section unless the owner first returns to the practice of paying all sums to the general contractor. As between the owner or lessee and the contractor or subcontractor, all payments made under this subsection are considered the same as if paid directly to the contractor or subcontractor. If an amount is withheld under this subsection from the contractor or subcontractor, the owner or lessee, upon request, shall prepare and provide to the contractor or subcontractor an itemized statement of the sums withheld. If an amount is paid directly to a lien claimant under this section, the owner or lessee shall, if requested by the contractor or subcontractor, provide to the contractor or subcontractor an itemized statement of the sums paid.

(8) An owner, lessee, designee, mortgagee, or contractor may rely on a sworn statement prepared by a party other than himself or herself to avoid the claim of a subcontractor, supplier, or laborer unless the subcontractor, supplier, or laborer has provided a notice of furnishing as required under section 109 or unless the notice of furnishing is excused under section 108 or 108a.

(9) If a contractor fails to provide a sworn statement to the owner or lessee before recording the contractor's claim of lien, the contractor's construction lien is not invalid. However, the contractor is not entitled to any payment, and a complaint, cross-claim, or counterclaim may not be filed to enforce the construction lien, until the sworn statement has been provided.

Name of Project \_\_\_\_\_  
Project Address \_\_\_\_\_  
Client \_\_\_\_\_  
Client Address \_\_\_\_\_  
Arch. Project # \_\_\_\_\_

Date: \_\_\_\_\_  
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## SWORN STATEMENT

(10) If a subcontractor fails to provide a sworn statement under subsection (2) to the owner or lessee before recording the subcontractor's claim of lien, the subcontractor's construction lien is valid. However, a complaint, cross-claim, or counterclaim may not be filed to enforce the construction lien until the sworn statement has been provided.

(11) A contractor or subcontractor who desires to draw money and gives or causes to be given to any owner or lessee a sworn statement required by this section that is false, with intent to defraud, is guilty of a crime as follows:

a) If the statement involved is for less than \$200.00, the contractor or subcontractor is guilty of a misdemeanor punishable by imprisonment for not more than 93 days or a fine of not more than \$500.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine.

(b) If any of the following apply, the contractor or subcontractor is guilty of a misdemeanor punishable by imprisonment for not more than 1 year or a fine of not more than \$2,000.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine:

(i) The statement involved is for \$200.00 or more but less than \$1,000.00.

(ii) The statement involved is for less than \$200.00 and the contractor or subcontractor has 1 or more prior convictions for committing or attempting to commit an offense under this act.

(c) If any of the following apply, the contractor or subcontractor is guilty of a felony punishable by imprisonment for not more than 5 years or a fine of not more than \$10,000.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine:

(i) The statement involved is for \$1,000.00 or more but less than \$20,000.00.

(ii) The statement involved is for more than \$200.00 but less than \$1,000.00 and the contractor or subcontractor has 1 or more prior convictions for violating or attempting to violate this act. For purposes of this subparagraph, however, a prior conviction does not include a conviction for a violation or attempted violation described in subdivision (a) or (b)(ii).

(d) If any of the following apply, the contractor or subcontractor is guilty of a felony punishable by imprisonment for not more than 10 years or a fine of not more than \$15,000.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine:

(i) The statement involved is for \$20,000.00 or more.

(ii) The statement involved is for \$1,000.00 or more but less than \$20,000.00 and the contractor or subcontractor has 2 or more prior convictions for committing or attempting to commit an offense under this act. For purposes of this subparagraph, however, a prior conviction does not include a conviction for a violation or attempted violation described in subdivision (a) or (b)(ii).

(12) For purposes of subsection (11), statements involved in separate incidents pursuant to a scheme or course of conduct within any 12-month period may be aggregated to determine the total amount involved in the statements.

(13) If the prosecuting attorney intends to seek an enhanced sentence for a violation under this section based upon the defendant having 1 or more prior convictions, the prosecuting attorney shall include in the complaint and information a statement listing the prior conviction or convictions. The existence of the defendant's prior conviction or convictions shall be determined by the court, without a jury, at sentencing or at a separate hearing for that purpose before sentencing. The existence of a prior conviction may be established by any evidence relevant for that purpose, including, but not limited to, 1 or more of the following:

(a) A copy of the judgment of conviction.

(b) A transcript of a prior trial, plea-taking, or sentencing.

(c) Information contained in a presentence report.

(d) The defendant's statement.

(14) If the sentence for a conviction under this section is enhanced by 1 or more convictions, those prior convictions shall not be used to further enhance the sentence for the conviction pursuant to section 10, 11, or 12 of chapter IX of the code of criminal procedure, 1927 PA 175, MCL 769.10, 769.11, and 769.12.



**SECTION 015000  
TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary Controls: Barriers and enclosures.
- B. Security requirements.
- C. Waste removal facilities and services.

**1.02 BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

**1.03 INTERIOR ENCLOSURES**

- A. Protect all areas adjacent to construction AND common points of travel to and from construction areas. Protection in these areas to include air quality, walk surfaces, equipment, furnishings, building occupants, etc. from dust / debris, excessive noise, wear, or damage of any kind. Prior to any physical work, the contractor must have a written plan for protection approved by the architect.
- B. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- C. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

**1.04 SECURITY - SEE SECTION 013553**

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

**1.05 WASTE REMOVAL**

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 016000  
PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Re-use of existing products.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Maintenance materials, including extra materials, spare parts, tools, and software.

**1.02 RELATED REQUIREMENTS**

- A. Section 012500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.

**1.03 SUBMITTALS**

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
  - 1. Submit within 15 days after date of Agreement.
  - 2. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

**PART 2 PRODUCTS**

**2.01 EXISTING PRODUCTS**

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- D. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is required.
  - 1. See Section 011000 for list of items required to be salvaged for reuse and relocation.
  - 2. If reuse of other existing materials or equipment is desired, submit substitution request.

**2.02 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. Use of products having any of the following characteristics is not permitted:
  - 1. Made using or containing CFC's or HCFC's.
  - 2. Containing lead, cadmium, or asbestos.

### **2.03 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

### **2.04 MAINTENANCE MATERIALS**

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Furnish min. 5% replacement stock materials for all non-painted ceiling, flooring, and wall coverings installed as part of this work.
- C. Deliver to Project site; obtain receipt prior to final payment.

## **PART 3 EXECUTION**

### **3.01 SUBSTITUTION LIMITATIONS**

- A. See Section 012500 - Substitution Procedures.

### **3.02 TRANSPORTATION AND HANDLING**

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

### **3.03 STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 017419.
  - 1. Structural Loading Limitations: Handle and store products and materials so as not to exceed static and dynamic load-bearing capacities of project floor and roof areas.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Arrange storage of materials and products to allow for visual inspection for the purpose of determination of quantities, amounts, and unit counts.
- E. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- F. For exterior storage of fabricated products, place on sloped supports above ground.
- G. Provide off-site storage and protection when site does not permit on-site storage or protection.

- H. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- I. Comply with manufacturer's warranty conditions, if any.
- J. Do not store products directly on the ground.
- K. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- L. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- M. Prevent contact with material that may cause corrosion, discoloration, or staining.
- N. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- O. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION**

**SECTION 017000  
EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Surveying for laying out the work.
- F. Cleaning and protection.
- G. Storage of Materials
- H. Starting of systems and equipment.
- I. Demonstration and instruction of Owner personnel.
- J. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 015000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- B. Section 015000 - Temporary Facilities and Controls: Temporary interior partitions.
- C. Section 078400 - Firestopping.
- D. Individual Product Specification Sections:
  - 1. Advance notification to other sections of openings required in work of those sections.
  - 2. Limitations on cutting structural members.

**1.03 REFERENCE STANDARDS**

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2019.

**1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
  - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Include design drawings and calculations for bracing and shoring.
  - 2. Identify demolition firm and submit qualifications.
  - 3. Include a summary of safety procedures.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of Owner or separate Contractor.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

**1.05 QUALIFICATIONS**

- A. For demolition work, employ a firm specializing in the type of work required.
  - 1. Minimum of 5 years of documented experience.
- B. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

## **1.06 PROJECT CONDITIONS**

- A. Use of explosives is not permitted.
- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- C. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- D. Perform dewatering activities, as required, for the duration of the project.
- E. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- F. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
- G. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
- H. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

## **1.07 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

## **PART 2 PRODUCTS**

### **2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### **3.02 PREPARATION**

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

### **3.03 PREINSTALLATION MEETINGS**

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
  - 1. Review conditions of examination, preparation and installation procedures.
  - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

### **3.04 LAYING OUT THE WORK**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
  - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
  - 2. Grid or axis for structures.
  - 3. Building foundation, column locations, ground floor elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

### 3.05 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

### 3.06 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as indicated.
  - 2. Report discrepancies to Architect before disturbing existing installation.
  - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
  - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 015000 in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
  - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
  - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove items indicated on drawings.
  - 2. Relocate items indicated on drawings.
  - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
  - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
  - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
  - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
  - 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
    - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
    - b. Provide temporary connections as required to maintain existing systems in service.
  - 4. Verify that abandoned services serve only abandoned facilities.
  - 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub

and tag with identification; patch holes left by removal using materials specified for new construction.

- F. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
  - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
  - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
  - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.
- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

### **3.07 CUTTING AND PATCHING**

- A. The Prime Contractor shall be responsible for coordinating all cutting and patching of built work that needs to be modified for missed items, errors, defects, etc., as caused by his own Employees or Sub-contractors. He shall coordinate with related trades and Sub-Contractors and work out all details and scheduling. The Prime Contractor shall coordinate with the responsible party for the problem and extra work and shall resolve all costs to correct, without additional charge to the Owner.
- B. Whenever possible, execute the work by methods that avoid cutting or patching.
- C. See Alterations article above for additional requirements.
- D. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.
  - 3. Provide openings for penetration of mechanical, electrical, and other services.
  - 4. Match work that has been cut to adjacent work.
  - 5. Repair areas adjacent to cuts to required condition.
  - 6. Repair new work damaged by subsequent work.
  - 7. Remove samples of installed work for testing when requested.
  - 8. Remove and replace defective and non-complying work.
- E. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- F. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- G. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

- H. Restore work with new products in accordance with requirements of Contract Documents.
- I. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- J. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.
- K. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
  - 2. Match color, texture, and appearance.
  - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### **3.08 PROGRESS CLEANING**

- A. On a daily basis, all rubbish and debris shall be cleaned up and placed in a dumpster on the job site to be removed/replaced as needed to a licensed disposal site. The building site shall be kept neat and organized, so that work and safety of all trades is not affected. Submit written documentation, manifests, logs, etc. of all debris removal at completion of job.
- B. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- C. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- D. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- E. Collect and remove waste materials, debris, and trash/rubbish from site daily and dispose off-site; do not burn or bury.
- F. It shall be the Prime Contractor's responsibility to clean-up and co-ordinate work areas so that each trade can perform their work safely and efficiently or direct and enforce that each Sub-Contractor conforms to these same requirements.
- G. Should the Contractor fail to clean-up debris caused from his operations and properly store and remove from site on a daily basis, the Owner in a safety/emergency situation without notice to the Contractor may elect to clean up debris with their own work force. At other times the Owner will give Contractor advance notice. All costs incurred by the Owner due to Contractor's neglect will be documented and deducted against the final contract amount due to the Contractor.

### **3.09 STORAGE OF MATERIALS**

- A. Materials used as part of this work shall be neatly stored and properly protected in an organized manner, so they do not interfere with the work, safety of all trades and hazard or damage to the site/building. Vandalism arising from improperly stored materials to the Owner's site/building shall be borne by the Contractor.

### **3.10 PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

### **3.11 ADJUSTING**

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

### **3.12 FINAL CLEANING**

- A. Use cleaning materials that are nonhazardous.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- I. If this contract involves construction of a new building, remodeling, or additions the scope of clean up shall be more than the normal removal of rubbish and leaving the work areas clean. The Contractor shall clean all new work, wash floors, vacuum carpet, wash glass, remove all stickers, replace broken glass, remove stains, spots, marks, dust and dirt from all decorated work and finishes, including all existing areas affected by this operation, including tenants furnishings, contents and personal belongings. All damage to lawns, walks, pavement, vehicles or other operations in performing this work shall be repaired or replaced to an equal, or better condition than before the damage occurred. The project shall be ready for Owner's occupancy and use when completed.

### **3.13 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  - 1. Provide copies to Architect.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.

- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

**END OF SECTION**

**SECTION 024100  
DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Selective demolition of built site elements.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- B. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
- C. Section 312323 - Fill and Testing: Filling holes, pits, and excavations generated as a result of removal operations.

**1.03 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

**1.04 QUALITY ASSURANCE**

- A. All demolition workmanship shall be of first quality, performed by skilled workers with items carefully removed to not damage existing work that remains or to be built upon/modified by other trades. The Demolition Contractor or workers shall be knowledgeable of the systems and materials they are removing. Coordinate all demolition work with the Sub-Contractors that will be required to repair, extend, modify, alter, etc., the item or items involved. Where possible, the actual trade performing the re-construction shall perform the demolition.

**PART 3 EXECUTION**

**2.01 SCOPE**

- A. Work included consists of, but is not limited to the following:
  - 1. Selective removal of walks and landscaping.
  - 2. All other work as indicated on the drawings.
- B. Remove concrete slabs on grade as indicated on drawings.
- C. Remove other items indicated, for salvage, relocation, and recycling.

**2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Obtain required permits.
  - 2. Comply with applicable requirements of NFPA 241.
  - 3. Use of explosives is not permitted.
  - 4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
  - 5. Provide, erect, and maintain temporary barriers and security devices.
  - 6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
  - 7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  - 8. Do not close or obstruct roadways or sidewalks without permit.

9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
  10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
  - C. Do not begin removal until built elements to be salvaged or relocated have been removed.
  - D. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.
  - E. Protect existing structures and other elements that are not to be removed.
    1. Prevent movement or settlement of adjacent structures.
    2. Stop work immediately if adjacent structures appear to be in danger.
    3. It is the contractor's responsibility to exercise proper care to protect all surroundings (air quality, furnishings, building, occupants, etc.) during all phases of construction. Certain areas with high replacement costs, containing occupants, still under warranty, and/or easily damaged should have added protection features. An example would be "flat" roofs and gymnasium floors and any walking surface to remain being covered using protective boards to prevent puncturing, denting, surface scratching, and wear. Prior to any physical work, the contractor must have a written plan for protection approved by the architect.
  - F. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
  - G. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
  - H. Perform demolition in a manner that maximizes salvage and recycling of materials.
    1. Dismantle existing construction and separate materials.
    2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

### **2.03 SALVAGEABLE MATERIALS**

- A. Where noted in Special Conditions, or herein, or other related Divisions or in the drawings, including mechanical and electrical, carefully remove certain items and store on job site in mutually agreed upon areas for Owner to pick-up and remove.
- B. Any salvageable items as requested to become the property of the Owner, and the Contractor feels the item will be destroyed in the removal process, or is not cost effective to carefully removed, shall be stated as such in the Bid Proposal. Also any item or items scheduled to be turned over to the Owner, which the Contractor feels has substantial salvageable value and wishes to retain, he may elect to submit a credit for Owner's consideration on the Bid Proposal.
- C. Contractor shall verify and coordinate salvageable material selection with the Owner prior to removal from the job site.
- D. Salvageable items to turn over to the owner include but are not limited to:
  1. None

### **2.04 EXISTING UTILITIES**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Contractor to locate all private utilities within work limits before starting physical work.
- C. Protect existing utilities to remain from damage.
- D. Do not disrupt public utilities without permit from authority having jurisdiction.
- E. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.

- F. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- G. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

**2.05 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**

**SECTION 031000  
CONCRETE FORMING AND ACCESSORIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Formwork for cast-in-place concrete, with shoring, bracing and anchorage.
- B. Openings for other work.
- C. Form accessories.
- D. Form stripping.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 032000 - Concrete Reinforcing.
- D. Section 033000 - Cast-in-Place Concrete.
- E. Section 053100 - Steel Decking

**1.03 REFERENCE STANDARDS**

- A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- B. ACI 301 - Specifications for Structural Concrete; 2016.
- C. ACI 347R - Guide to Formwork for Concrete; 2014 (Reapproved 2021).

**PART 2 PRODUCTS**

**2.01 FORMWORK - GENERAL**

- A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.
- B. Design and construct concrete that complies with design with respect to shape, lines, and dimensions.
- C. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.

**2.02 WOOD FORM MATERIALS**

- A. Form Materials: Lumber used in forms for exposed surfaces shall be dressed to a uniform width and thickness and shall be free from loose knots or other defects. Joints in forms shall be horizontal or vertical. Undressed lumber may be used for rough work or unexposed work.

**2.03 FORMWORK ACCESSORIES**

- A. Form Release Agent: Capable of releasing forms from hardened concrete without staining or discoloring concrete or forming bugholes and other surface defects, compatible with concrete and form materials, and not requiring removal for satisfactory bonding of coatings to be applied.
  - 1. Composition: Colorless, reactive, water-based or solvent-based compound.
  - 2. Do not use materials containing diesel oil or petroleum-based compounds.
  - 3. VOC Content: In compliance with applicable local, State, and federal regulations.
  - 4. Products:
    - a. SpecChem, LLC; SpecStrip: [www.specchemllc.com/#sle](http://www.specchemllc.com/#sle).
    - b. W. R. Meadows, Inc; Duogard: [www.wrmeadows.com/#sle](http://www.wrmeadows.com/#sle).
- B. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.
- C. Embedded Anchor Shapes, Plates, Angles and Bars: As specified in Section 051200.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

#### **3.02 ERECTION - FORMWORK**

- A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
- C. If the nature of the soil will permit, trenches for wall footings may be cut to accurate sizes and side form omitted where the earth will properly contain the concrete. Conform with requirements/recommendations of ACI 347R for formwork.
- D. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- E. Coordinate this section with other sections of work that require attachment of components to formwork.
- F. If formwork is placed after reinforcement, resulting in insufficient concrete cover over reinforcement, request instructions from Architect before proceeding.

#### **3.03 APPLICATION - FORM RELEASE AGENT**

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

#### **3.04 INSERTS, EMBEDDED PARTS, AND OPENINGS**

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
- B. Locate and set in place items that will be cast directly into concrete.
- C. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other work.
- D. Install accessories in accordance with manufacturer's instructions, so they are straight, level, and plumb. Ensure items are not disturbed during concrete placement.

#### **3.05 FORM CLEANING**

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.

#### **3.06 FORMWORK TOLERANCES**

- A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

#### **3.07 FORM REMOVAL**

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
- B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.

**END OF SECTION**

**SECTION 032000  
CONCRETE REINFORCING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Reinforcing steel for cast-in-place concrete.
- B. Supports and accessories for steel reinforcement.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 031000 - Concrete Forming and Accessories.
- D. Section 033000 - Cast-in-Place Concrete.

**1.03 REFERENCE STANDARDS**

- A. ACI 301 - Specifications for Structural Concrete; 2016.
- B. ACI 318 - Building Code Requirements for Structural Concrete; 2019, with Errata (2021).
- C. ACI SP-66 - ACI Detailing Manual; 2004.
- D. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2020.
- E. ASTM A704/A704M - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement; 2019, with Editorial Revision.
- F. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.
- G. ASTM D3963/D3963M - Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Steel Reinforcing Bars; 2021.
- H. CRSI (DA4) - Manual of Standard Practice; 2009.
- I. CRSI (P1) - Placing Reinforcing Bars, 10th Edition; 2019.

**1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.

**1.05 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI 301.
  - 1. Maintain one copy of each document on project site.

**PART 2 PRODUCTS**

**2.01 REINFORCEMENT**

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi) (420 MPa).
  - 1. Unfinished.
- B. Reinforcing Steel Mat: ASTM A704/A704M, using ASTM A615/A615M, Grade 40 (40,000 psi) (280 MPa) steel bars or rods, unfinished.
- C. Steel Welded Wire Reinforcement (WWR): Galvanized, deformed type; ASTM A1064/A1064M.
- D. Reinforcement Accessories:
  - 1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch (1.29 mm).

2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement. Accessories shall be placed in accordance with the CRSI Code unless otherwise noted.

## **2.02 FABRICATION**

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.
- B. Welding of reinforcement is not permitted.
- C. Fabricate and handle epoxy-coated reinforcing in accordance with ASTM D3963/D3963M.
- D. Locate reinforcing splices not indicated on drawings at point of minimum stress.

## **PART 3 EXECUTION**

### **3.01 PLACEMENT**

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Reinforcement shall be carefully formed to dimensions on the plans and as recommended in "Details & Detailing of Concrete Reinforcement" (ACI SP-66. Placement of bars shall conform to latest CRSI "Recommended Practice for Placing Reinforcement Bars"), details and detailing of concrete reinforcing ACI 315, and guide for concrete floor and slab construction ACI 302.1-R.
- C. Metal reinforcement shall not be bent or straightened in a manner that will injure the material. Bars with kinks or bends not shown on the plans shall not be used.
- D. Accommodate placement of formed openings.
- E. Unless otherwise noted, lap continuous bars 36 diameters, but in any case' not less than 15". Horizontal bars shall continue around corners minimum of 15" unless otherwise noted. Provide corner bars equivalent in size and number to horizontal bars at corners and wall footings and lap with horizontal reinforcement.
- F. Reinforcement shall be free from rust, scale and oil, and shall be accurately positioned and secured against displacement by using annealed wire of not less than No. 16 Ga., or suitable clips at intersections and shall be supported in a manner that will keep all metal away from the exposed surface of the concrete.
- G. Comply with applicable code for concrete cover over reinforcement. The minimum concreted cover shall be: for concrete exposed to the weather 1-1/2" for #5 and smaller, 2" for #6 and larger; 3" for concrete on or below ground; 3/4" in slabs on grade, walls and joists, and 1-1/2" for beams, girders and columns.
- H. Lap mesh a minimum of one grid spacing (plus 2") and ensure that mesh is completely embedded in the concrete approximately 2" from the bottom of the slab.
- I. Dowel masonry foundation walls to concrete entrance aprons and footings minimum of 24 bar diameters into each wall and footing at 24" O.C. with (1) - #5 unless noted otherwise on the plans.
- J. Dowel all exterior concrete slabs/walks into concrete porches and aprons with #4-bars 24" O.C. unless noted otherwise.

**END OF SECTION**

**SECTION 033000  
CAST-IN-PLACE CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Exterior concrete slabs, concrete walks, concrete curbs, etc.
- B. Concrete foundations and footings.
- C. Joint devices associated with concrete work.
- D. Concrete curing.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 031000 - Concrete Forming and Accessories: Forms and accessories for formwork.
- D. Section 032000 - Concrete Reinforcing.
- E. Section 079200 - Joint Sealants

**1.03 REFERENCE STANDARDS**

- A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; 1991 (Reapproved 2009).
- C. ACI 301 - Specifications for Structural Concrete; 2016.
- D. ACI 302.1R - Guide to Concrete Floor and Slab Construction; 2015.
- E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- F. ACI 305R - Guide to Hot Weather Concreting; 2010.
- G. ACI 306R - Guide to Cold Weather Concreting; 2016.
- H. ACI 308R - Guide to External Curing of Concrete; 2016.
- I. ACI 318 - Building Code Requirements for Structural Concrete; 2019, with Errata (2021).
- J. ACI 347R - Guide to Formwork for Concrete; 2014 (Reapproved 2021).
- K. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2018.
- L. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2021.
- M. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- N. ASTM C150/C150M - Standard Specification for Portland Cement; 2021.
- O. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).
- P. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2019.
- Q. ASTM E1155/E1155M - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers; 2023.
- R. ASTM E1155M - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers (Metric); 2014.
- S. ICRI 310.2R - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair; 2013.

#### **1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
  - 1. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.
- C. Mix Design: Submit proposed concrete mix design.
  - 1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
  - 2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.
  - 3. Indicate proposed mix design complies with admixture manufacturer's written recommendations.
- D. Test Reports: Submit report for each test or series of tests specified.

#### **1.05 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
  - 1. Maintain one copy of each document on site.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

#### **1.06 WARRANTY**

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.

### **PART 2 PRODUCTS**

#### **2.01 FORMWORK**

- A. Comply with requirements of Section 031000.

#### **2.02 REINFORCEMENT MATERIALS**

- A. Comply with requirements of Section 032000.

#### **2.03 ADMIXTURES**

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.

#### **2.04 ACCESSORY MATERIALS**

- A. Tactile surface of ramps and crosswalks (sidewalk/paving transitions) with detectable warning strip shall be contrasting solid color pre-manufactured polymer composite tiles as manufactured by Armor-Tile Tactile Systems, 1-800-682-2525 or cast-iron plates as manufactured by East Jordan Iron Works (800) 231-3549. Install units directly into wet concrete without anchors or adhesives in strict compliance with manufacturer's installation instructions. Color as selected by Architect.

#### **2.05 BONDING AND JOINTING PRODUCTS**

- A. Water Stops – Multi-ribbed, keyway design and others as detailed on drawings, for non-limited movement as manufactured by Bometals, Inc., Powder Springs, GA, 800-862-4835 or approved equal.
- B. Expansion joint to be fiberboard impregnated with not less than 35% nor more than 50% of asphalt by weight. Joint material to be full thickness of slab or joint and 1/4" thick interior and 1/2" thick exterior, height equal to slab thickness, with removable top section that will form 1/2 inch (13 mm) deep sealant pocket after removal.

## 2.06 CURING MATERIALS

- A. Exterior Concrete Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.
  - 1. Products:
    - a. Euclid Chemical Company; COLOR-CRETE CURE AND SEAL VOC: [www.euclidchemical.com/#sle](http://www.euclidchemical.com/#sle).
    - b. W. R. Meadows, Inc; 1100-Clear: [www.wrmeadows.com/#sle](http://www.wrmeadows.com/#sle).

## 2.07 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
  - 1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
- C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- D. Normal Weight Concrete:
  - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 3,000 PSI; Footings, foundations, and interior slabs on grade – 3,500 PSI; Columns – 4,000 PSI; Exterior slabs, walks, curbs, and pads - 4,000 PSI air entrained w/ 4% - 6% air.

## 2.08 MIXING

- A. Mixing, placing and curing shall conform to ACI 301, ACI 305-R hot weather concreting, and ACI 306-R (cold weather concreting) and ACI 304-R (measuring, mixing and placing). Ready mixed concrete may be used and shall be mixed and delivered in accordance with ASTM 094-55T. Delivery tickets shall be recorded for inspection showing batch No., mix admixtures, time, water content, etc. Submit copies to Architect.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

### 3.02 PREPARATION

- A. All existing pavement, walks, curbs and other hard materials shall be saw cut in straight perpendicular/parallel lines in regular geometric patterns. Walk sections and other similar work shall be removed back to nearest control joint for replacement of the full section.
- B. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- C. Verify that forms are clean and free of rust before applying release agent.
- D. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- E. Prepare existing concrete surfaces to be repaired according to ICRI 310.2R.
- F. In locations where new concrete is doveled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout or epoxy as specified.

### 3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

### 3.04 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Notify Architect not less than 24 hours prior to commencement of placement operations.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- F. Before concrete is placed, all equipment for mixing and transporting concrete shall be cleaned, all debris shall be removed from spaces to be occupied by the concrete, forms shall be thoroughly wetted and oiled, water shall be removed from excavations, and all work to be built into the concrete shall be in place, inspected and approved by the Architect.
- G. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
- H. Concrete shall be handled from the mixer to the place of final deposit as rapidly as possible by methods, which shall prevent the separation or loss of ingredients.
- I. Weather Conditions:
  - 1. Concrete shall not be placed during rain, sleet or snow, to avoid adding to the water content or damage surface finish.
  - 2. Below mean daily temperature of 40 degrees F.; concrete temperature as placed shall be 50 degrees F.; above mean daily temperature of 90 degrees F.; the concrete temperature shall not exceed 90 degrees F.
  - 3. Cold Weather Concrete
    - a. Contractor shall exercise precautions as outlined in ACI 306-R for concrete installed in cold weather. Included is all heating equipment, fiberglass insulation, visqueen, etc., as required to thoroughly protect the concrete.
    - b. The Contractor shall notify the Architect of any concrete placement within twenty-four hours in advance. Failure to do so will result in concrete removal and replacement at the Contractor's expense.

### 3.05 SLAB JOINTING

- A. Locate joints as indicated on drawings. If deviations are required, contractor to provide drawing to Architect for approval.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.
- D. Control Joints
  - 1. Exterior Joints in walks to be tooled - no saw-cutting allowed.

### 3.06 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch (6 mm) or more in height.
- C. All exposed surfaces when forms are stripped shall be sealed with a light cement sand mixture. Thoroughly wet surfaces and rub with burlap to fill all air pockets and voids.
- D. Chamfer all exposed edges  $\frac{3}{4}$ " x 45 degrees
- E. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:

1. Finish exterior walks and platforms with magnesium trowel and give a lightly swirled, non-slip trowel finish.
2. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

### **3.07 CURING AND PROTECTION**

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Surfaces Not in Contact with Forms:
  1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
  2. Final Curing: Begin after initial curing but before surface is dry.

### **3.08 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.
- E. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure three concrete test cylinders. Obtain test samples for every 50 cubic yards (38.23 cu m) or less of each class of concrete placed.
- F. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
- G. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.

### **3.09 DEFECTIVE CONCRETE**

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

### **3.10 PROTECTION**

- A. Do not permit traffic over unprotected concrete floor surface until fully cured.

**END OF SECTION**

**SECTION 053100  
STEEL DECKING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Metal form deck.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements

**1.03 REFERENCE STANDARDS**

- A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- B. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020.
- C. ICC-ES AC70 - Acceptance Criteria for Fasteners Power Driven into Concrete, Steel and Masonry Elements; 2016.
- D. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.
- E. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

**1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittals procedures.
- B. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.
- C. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories.

**1.05 QUALITY ASSURANCE**

- A. Design deck layout, spans, fastening, and joints under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

**PART 2 PRODUCTS**

**2.01 STEEL DECK**

- A. All Deck Types: Select and design metal deck in accordance with SDI Design Manual.
  - 1. Calculate to structural working stress design and structural properties specified.
- B. Metal Form Deck:
  - 1. Shall be as manufactured by a member of the Steel Deck Technical Institute. Deck shall be designed, fabricated and erected in accordance with the "Basic Design Specifications", as adopted by the Institute, unless otherwise specified herein.
  - 2. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 33/230, with G90/Z275 galvanized coating.
    - a. Minimum grade 33 ksi unless noted otherwise.
  - 3. Vulcraft 1-1/2" VLR composite floor deck profile to be with maximum flat area on bottom side (opposite of roof decking) to maximize amount of concrete for greatest concrete deck strength. Capable of supporting a total dead load of 68 psf, without producing a deflection greater than 1/240 of the clear span. (20 Ga. to 5'-6" and 18 Ga. to 6'-9" span)

**2.02 ACCESSORY MATERIALS**

- A. Welding Materials: AWS D1.1/D1.1M.
- B. Fasteners: Galvanized hardened steel, self tapping.

- C. Powder Actuated Mechanical Fasteners: Steel; with knurled shank and forged ballistic point. Comply with applicable requirements of ICC-ES AC70.
  - 1. Design Requirements: Provide number and type of fasteners that comply with the applicable requirements of SDI (DM) design method for roof deck and floor deck applications and ICC-ES AC43.
- D. Weld Washers: Mild steel, uncoated, 3/4 inch (19 mm) outside diameter, 1/8 inch (3 mm) thick.
- E. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, complying with VOC limitations of authorities having jurisdiction.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify existing conditions prior to beginning work.

#### **3.02 INSTALLATION**

- A. Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level.
- B. On concrete and masonry surfaces provide minimum 4 inch (100 mm) bearing.
- C. Porch (form) decking:
  - 1. Vertical re-steel from footing to extend through deck and bent over. Deck shall be cut short of outside footing/foundation fact to allow concrete slab to seal off against exposure to earth.
  - 2. Provide a minimum of 3" void between earth and underside of metal deck.

**END OF SECTION**

**SECTION 079200  
JOINT SEALANTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements

**1.03 REFERENCE STANDARDS**

- A. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.

**1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
  - 2. List of backing materials approved for use with the specific product.
  - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
  - 4. Substrates the product should not be used on.
  - 5. Substrates for which use of primer is required.
  - 6. Substrates for which laboratory adhesion and/or compatibility testing is required.
  - 7. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
  - 8. Sample product warranty.
- C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

**1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section and with at least five years of documented experience.

**1.06 WARRANTY**

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal , exhibit loss of adhesion or cohesion, or do not cure.

**PART 2 PRODUCTS**

**2.01 JOINT SEALANTS - GENERAL**

- A. Colors: as selected from manufactures complete colors.

**2.02 JOINT SEALANTS**

- A. General Exterior - One part polyurethane sealant equal to Vulkem 116, or Tremco Dymonic 100.
- B. Asphalt Compatible – Sealtight pointing mastic, available in 29 oz. cartridges as manufactured by W.R. Meadows.

### **2.03 ACCESSORIES**

- A. Primer - A quick drying clear primer as recommended by manufacturer shall be used where required.
- B. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- C. Filler Material - Polyurethane foam rod stock, non-gassing, open-cell, equal to Tundra Foam, as manufactured by Industrial Thermo Polymers Limited, 2316 Delaware Avenue, Suite 216, Buffalo, NY 14216 (212-475-2000) and as distributed by Williams Products, Inc., Troy, MI. (248-643-6400). Size shall be such that when compacted, it equals 2/3 of its original width, or as recommended by the sealant manufacturer. Tundra foam rod stock is black (ebony) color, compatible with hot pour and cold applied sealants.
- D. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- E. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

#### **3.02 PREPARATION**

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

#### **3.03 INSTALLATION**

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Joints deeper than 1/2" shall be built up to a depth of 3/8" below adjacent surfaces with approved compacted filler material prior to applying sealant.
- D. Install bond breaker backing tape where backer rod cannot be used.
- E. Sealant shall be installed in strict conformance with the manufacturer's recommendations. Compounds shall generally be applied by means of a handgun. Use special nozzles as required for hard to apply areas. Exercise extreme care to prevent smearing on adjacent surfaces. A full head of sealant shall be applied into joint under sufficient pressure to fill all voids and joints solidly, drawing nozzle across sealant to leave a slightly concave surface.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- H. Neatly tool joints to slightly concave surface, using tooling agent recommended by sealant manufacturer. Repair any air pockets exposed by tooling. Tool so as to compress material and

improve adhesion to surfaces joined. Sealant bead shall be of width/depth and cross section as recommended by manufacturer.

- I. Sealed joints shall not be touched, washed, or otherwise disturbed for 48 hours, to allow sealant to cure.
- J. Final appearance of joint shall be without sags, ripples, globs and waviness. It shall be a straight, uniform sized, continuous flow of material. Work in and blend where one stroke flow ends and other begins.
- K. Joints shall be caulked before painting adjacent work. Do not paint over any sealant unless allowed by manufacturer.
- L. When concrete walks abutt vertical walls and aprons, the expansion joint material is to be held down 1/2" and sealed flush with polyurethane sealant to not pond water.
- M. Caulk all joints as called for on the drawings, or specified herein as required to complete the work including, but not limited to, caulking of the following:
  - 1. Under exterior door/window thresholds – full bed.
  - 2. Joints of exterior slabs/walks against buildings and in structural slabs/aprons/porches.
  - 3. Refer to drawings for other locations.

#### **3.04 FIELD QUALITY CONTROL**

- A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.
- B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

#### **3.05 POST-OCCUPANCY**

- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at low temperature in thermal cycle. Report failures immediately and repair.

**END OF SECTION**

**SECTION 311000  
SITE CLEARING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Site clearing, grubbing, and protection of vegetation.
- B. Removal of existing debris.

**1.02 RELATED REQUIREMENTS**

- A. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- B. Section 016000 - Product Requirements
- C. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products.
- D. Section 024100 - Demolition: Removal of built elements and utilities.
- E. Section 312200 - Grading: Topsoil removal.
- F. Section 312323 - Fill and Testing: Filling holes, pits, and excavations generated as a result of removal operations.

**PART 2 PRODUCTS -- NOT USED**

**PART 3 EXECUTION**

**3.01 SITE CLEARING**

- A. Comply with other requirements specified in Section 017000.
- B. Remove from site all miscellaneous concrete, stone fill, rocks, etc., that affects the scope of this work or as shown on the drawings. Remove clay, sand and sub-soils from contract area and if used for backfill later, deposit on site in another area as directed by Owner.
- C. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

**3.02 EXISTING UTILITIES AND BUILT ELEMENTS**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Protect existing structures and other elements that are not to be removed.

**3.03 VEGETATION**

- A. Do not remove or damage vegetation beyond the limits indicated on drawings.
- B. Install substantial, highly visible fences at least 3 feet high (at least 1 m high) to prevent inadvertent damage to vegetation to remain:
  - 1. At vegetation removal limits.
- C. In areas where vegetation must be removed but no construction will occur other than pervious paving, remove vegetation with minimum disturbance of the subsoil.
- D. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.
  - 1. Chip, grind, crush, or shred vegetation for mulching, composting, or other purposes; preference should be given to on-site uses.
  - 2. Trees: Sell if marketable; if not, treat as specified for other vegetation removed; remove stumps and roots to depth of 18 inches (450 mm).

3. Sod: Re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.
- E. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

**3.04 DEBRIS**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**

**SECTION 312200  
GRADING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Removal and stockpiling of topsoil.
- B. Finish grading.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 311000 - Site Clearing.
- D. Section 312316 - Excavation.
- E. Section 312316.13 - Trenching: Trenching and backfilling for utilities.
- F. Section 312323 - Fill and Testing: Filling and compaction.
- G. Section 329219 - Seeding: Finish ground cover.

**1.03 SUBMITTALS**

- A. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Topsoil: See Section 312323.
- B. Other Fill Materials: See Section 312323.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.
- B. Verify the absence of standing or ponding water.

**3.02 PREPARATION**

- A. Identify required lines, levels, contours, and datum.
- B. Stake and flag locations of known utilities.
- C. Locate, identify, and protect from damage above- and below-grade utilities to remain.
- D. Notify utility company to remove and relocate utilities.
- E. Provide temporary means and methods to remove all standing or ponding water from areas prior to grading.
- F. Protect site features to remain, including but not limited to bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs, from damage by grading equipment and vehicular traffic.
- G. Protect trees to remain by providing substantial fencing around entire tree at the outer tips of its branches; no grading is to be performed inside this line.
- H. Protect plants, lawns, rock outcroppings, and other features to remain as a portion of final landscaping.

**3.03 ROUGH GRADING**

- A. Remove topsoil from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials.
- B. Do not remove topsoil when wet.

- C. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack surface water control.

#### **3.04 SOIL REMOVAL**

- A. Stockpile excavated topsoil on site.
- B. Stockpiles: Use areas designated on site by owner; pile depth not to exceed 8 feet (2.5 m); protect from erosion.

#### **3.05 FINISH GRADING**

- A. Before Finish Grading:
  - 1. Verify subgrade has been contoured and compacted.
  - 2. Before placing fill, remove all debris subject to termite attack, rot or corrosion and other deleterious materials from area to be backfilled. Deposit backfill in layers not more than 8" thick. All fill material shall be reasonably free from roots, plaster, bats and frozen or otherwise unsuitable material. Stones larger than 4" shall not be permitted in the upper 6" of fill. Compact fill in layers. The finished sub-grade shall be brought to elevations indicated and sloped to drain water from building to match flush with existing grades
- B. In all earth/grass areas that remain in final design, within the contract limits, shall be scarified, earth turned over/rototilled, graded, raked, seeded and mulched for an all new grass area.
- C. Near plants spread topsoil manually to prevent damage.
- D. Distribute topsoil to bring areas not occupied by walks, etc., to finish grade as shown on drawings. Finish grade shall be raked smooth and seeded. Topsoil shall be minimum of 4" thick. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.
- E. Lawn areas to be rough graded to same slope as final grades specified (less topsoil thickness). Work level, drag, semi-compact and roll. All areas shall be free of all debris that might interfere or work-up through top soil and plant materials.
- F. Finish grades shall correspond with existing grades, unless otherwise indicated. Excess top soil from stockpile that is left after finish grades are met shall be distributed on site, or removed as directed by Owner - grade smooth without dips and not to pond water, seed and mulch.
- G. Maintain stability of topsoil during inclement weather. Replace topsoil in areas where surface water has eroded thickness below specifications.

#### **3.06 TOLERANCES**

- A. Top Surface of Subgrade: Plus or minus 0.10 foot (1-3/16 inches) (30 mm) from required elevation.
- B. Top Surface of Finish Grade: Plus or minus 0.04 foot (1/2 inch) (13 mm).

#### **3.07 REPAIR AND RESTORATION**

- A. Existing Facilities, Utilities, and Site Features to Remain: If damaged due to this work, repair or replace to original condition.
- B. Other Existing Vegetation to Remain: If damaged due to this work, replace with vegetation of equivalent species and size.

#### **3.08 FIELD QUALITY CONTROL**

- A. See Section 312323 for compaction density testing.

#### **3.09 CLEANING**

- A. Remove unused stockpiled topsoil. Grade stockpile area to prevent standing water.
- B. Leave site clean and raked, ready to receive landscaping.

**END OF SECTION**

**SECTION 312316  
EXCAVATION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Excavating for footings, slabs-on-grade, paving, and site structures/landscape areas.
- B. Temporary excavation support and protection systems.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 311000 - Site Clearing
- D. Section 312200 - Grading
- E. Section 312323 - Fill and Testing: Fill materials, backfilling, and compacting.

**1.03 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Bedding and Fill to Correct Over-Excavation:
  - 1. See Section 312323 for bedding and corrective fill materials at general excavations.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that survey bench mark and intended elevations for the work are as indicated.
- B. Determine the prevailing groundwater level prior to excavation. If the proposed excavation extends less than 1 foot (305 mm) into the prevailing groundwater, control groundwater intrusion with perimeter drains routed to sump pumps, or as directed by Architect. If the proposed excavation extends more than 1 foot (305 mm) into the prevailing groundwater, control groundwater intrusion with a comprehensive dewatering procedures, or as directed by Geotechnical Engineer.

**3.02 PREPARATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. See Section 311000 for clearing, grubbing, and removal of existing debris.
- C. See Section 312200 for topsoil removal.
- D. Locate, identify, and protect utilities that remain and protect from damage.
- E. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- F. Protect plants, lawns, rock outcroppings, and other features to remain.
- G. Grade top perimeter of excavation to prevent surface water from draining into excavation. Provide temporary means and methods, as required, to maintain surface water diversion until no longer needed, or as directed by Architect.
- H. Shore and brace excavations as required to prevent cave in of soils and adjacent structures that could be damaged by excavating work.

**3.03 EXCAVATING**

- A. Excavate to accommodate new structures and construction operations.
- B. Notify Architect of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.

- C. Do not interfere with 45 degree bearing splay of foundations.
- D. Provide temporary means and methods, as required, to remove all water from excavations until directed by Architect. Remove and replace soils deemed suitable by classification and which are excessively moist due to lack of dewatering or surface water control.

#### **3.04 SUBGRADE PREPARATION**

- A. See Section 312323 for subgrade preparation at general excavations.
- B. If suitable bearing is not encountered at the depth indicated on drawings for foundation, the Contractor shall immediately notify the Architect. He shall not proceed further until instructions are given and necessary measurements made for purpose of establishing additional volume of excavation.

#### **3.05 FILLING AND BACKFILLING**

- A. Do not fill or backfill until all debris, water, unsatisfactory soil materials, obstructions, and deleterious materials have been removed from excavation.
- B. See Section 312323 for fill, backfill, and compaction requirements at general excavations.
- C. See Section 312200 for rough and final grading and topsoil replacement requirements.
- D. Remove shoring as backfilling progresses, but only when permanent supports are in place.

#### **3.06 REPAIR**

- A. Correct areas that are over-excavated and load-bearing surfaces that are disturbed; see Section 312323.

#### **3.07 CLEANING**

- A. Stockpile excavated material to be re-used in area designated on site in accordance with Section 312200.
- B. Remove excavated material that is unsuitable for re-use from site.
- C. Remove excess excavated material from site.

#### **3.08 PROTECTION**

- A. Divert surface flow from rains or water discharges from the excavation.
- B. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.
- C. Protect open excavations from rainfall, runoff, freezing groundwater, or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition.
- D. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- E. Keep excavations free of standing water and completely free of water during concrete placement.

**END OF SECTION**

**SECTION 312323  
FILL AND TESTING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Filling, backfilling, and compacting for footings and slabs-on-grade.
- B. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.
- C. Testing of subgrade and backfilled areas.

**1.02 RELATED REQUIREMENTS**

- A. Section 015713 - Temporary Erosion and Sediment Control: Slope protection and erosion control.
- B. Section 016000 - Product Requirements
- C. Section 017000 - Execution and Closeout Requirements
- D. Section 033000 - Cast-in-Place Concrete.
- E. Section 312200 - Grading: Site grading.
- F. Section 312316 - Excavation: Removal and handling of soil to be re-used.

**1.03 REFERENCE STANDARDS**

- A. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2017 (Reapproved 2025).

**1.04 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data for Manufactured Fill.
- C. Compaction Density Test Reports.

**1.05 QUALITY ASSURANCE**

- A. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. When necessary, store materials on site in advance of need.
- B. When fill materials need to be stored on site, locate stockpiles where as directed by owner.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.

**1.07 WARRANTY**

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

**PART 2 PRODUCTS**

**2.01 FILL MATERIALS**

- A. General Fill: Subsoil excavated on-site
  - 1. Free of lumps larger than 3 inches (75 mm), rocks larger than 2 inches (50 mm), and debris.
  - 2. Complying with ASTM D2487 Group Symbol CL.
- B. Granular Fill - Fill Type 21A, 25A, and others as called out on plans: Coarse aggregate, complying with State of Michigan/Ohio Highway Department standards.
- C. Sand - Shall be Class 2 NS yellow bank sand, meeting ASTM C-33 compacted and tested in maximum 8" lifts from bottom of excavation
  - 1. Grade in accordance with ASTM D2487 Group Symbol SW.

- D. Topsoil - Fill under lawns with new top soil furnished from off-site shall be natural, fertile, friable soil obtained from natural well drained areas and possessing characteristics of representative productive soil in vicinity. Shall be easily worked. Soil shall not be excessively acid, alkaline or contain toxic substances harmful to plant growth. Soil shall be without admixtures of subsoil and shall be cleaned, reasonably free from clay, lumps, stones, stumps, roots or similar substances 1" or larger in diameter, or other objects which might be a hindrance to planting operation. Topsoil 4" compacted depth and finely raked to finished elevations shown. Top soil from stockpile on site (stripped soils) may be re-used, providing it is clean, without rocks, grass, etc. as noted for new.
- E. Stabilized Concrete Backfill (Ready Mixed Flowable Fill, RFF) - Shall consist of a mixture of 1,700 lbs. fly ash (dry weight), meeting ASTM C-618, 90 lbs., Type I Cement, meeting ASTM C-150 and 100-120 gallons of water for a 1.29 water-cement ratio and a minimum of 50 psi compressive strength at 28 days, similar to M-Crete as distributed by Messina Concrete Inc., of Monroe, MI. The flowable fill mixture shall be delivered to the job site in a revolving drum mixer truck and the temperature of the mix shall be at least 50°F. when placed. Submit mix design as shop drawing to the Architect.

## **2.02 SOURCE QUALITY CONTROL**

- A. See Section 014000 - Quality Requirements, for general requirements for testing and analysis of soil material.
- B. Where fill materials are specified by reference to a specific standard, testing of samples for compliance will be provided before delivery to site.
- C. If tests indicate materials do not meet specified requirements, change material and retest.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. Verify areas to be filled are not compromised with surface or ground water.

### **3.02 PREPARATION**

- A. Scarify and proof roll subgrade surface to a depth of 6 inches (150 mm) to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.
- E. Sub-grade (new and existing) shall be tested and approved by an independent Soils Engineer before placing of concrete slabs, paving, footings, etc. The Contractor shall utilize the same testing company who performed the soils report in this manual or one who will support the same findings/recommendations. This Contractor shall pay for all fees, inspections, reports, compaction tests, etc. and submit all reports verbally, followed in writing, to the Architect before placing additional fill or new work. Lifts shall be limited to 8" maximum. Testing shall include all existing and new fill (stone and sand). Footing bearing tests to be minimum of 2,000 lbs. per square feet.

### **3.03 FILLING**

- A. If suitable bearing is not encountered at the depth indicated on drawings for foundation, the Contractor shall immediately notify the Architect. He shall not proceed further until instructions are given and necessary measurements made for purpose of establishing additional volume of excavation
- B. Place footings and foundations upon undisturbed and firm bottoms. Fill any excess cuts under footings with concrete.
- C. Do not place footings or slabs on frozen ground. Protect bottoms of trenches and excavations with straw or other suitable materials.

- D. Fill to contours and elevations indicated using unfrozen materials.
- E. Employ a placement method that does not disturb or damage other work.
- F. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- G. Maintain optimum moisture content of fill materials to attain required compaction density.
- H. Slope grade away from building minimum 2 inches in 10 feet (50 mm in 3 m), unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- I. Correct areas that are over-excavated.
  - 1. Other areas: Use general fill, flush to required elevation, compacted to minimum 97 percent of maximum dry density.
- J. Reshape and re-compact fills subjected to vehicular traffic.
- K. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Architect. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

### 3.04 FILL AT SPECIFIC LOCATIONS

- A. Provide all cutting, filling and grading necessary to bring areas indicated to the following minimum sub-levels (or sub-levels as noted on plans):
  - 1. Under Walks - 8" below finish grade (4" #21A stone fill minimum under walks).
  - 2. Under other areas (grass) - 4" below finish grade (4" topsoil required).
  - 3. General Lawn Areas - Good clean excavated/stripped materials (without grass clumps, rocks, etc.) may be used as base (clay/sand) fill in lawn areas within contract limits. Excess topsoil may be used as final surfacing in lawn areas.

### 3.05 TESTING / FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field inspection and testing.
- B. REQUIRED TESTS/AREAS:
  - 1. Footing Bearing Tests - At each wall location, approximately every 20 lineal feet, depending on soil type changes. Critical locations to be at all columns, major beam bearing points, and against existing building.
  - 2. Paving Stone Density Tests - Approximately every 5,000 S.F., at edges, around catch basins, over utility trenches, major drive lanes, cut outs, patches, etc.
  - 3. Testing of Sub-Base (Top of Stripped Soils) & Any New Fill (Sand/Stone) - Shall be made in every cut out area (1 of 2 points) and in other areas at the minimum rate of 1 for every 5,000 S.F. of paving surface. The actual locations in the field shall be as recommended and/or selected by the testing company and in any questionable areas as requested by the Architect/Owner. The testing and/or re-testing shall occur until the specifications are met and until the Testing Engineer submits report, stating that the surface is suitable for the next phase of work.
- C. Density tests shall be taken by the testing lab using a calibrated nuclear densometer registered for the soils/fill type and density based on actual proctor.
- D. In lieu of, and in conjunction with the nuclear densometer, the stripped cut base (natural soils) and the new stone base may be proofed rolled with a 20 to 30 ton hard rubber tired vehicle in the presence and direction of the testing lab technician.
- E. C.I.P. (Compact in Place) Fill - Shall be thoroughly compacted to 95% capacity at optimum moisture content as determined by the ASTM D 1557 (Modified Proctor) as indicated on plans or specified herein.
- F. Fill at asphalt drive areas shall be thoroughly compacted to 95% capacity at optimum moisture content as determined by the ASTM D 1557 (Modified Proctor). Existing soils within the paving

limits (upper 6") shall be compacted to a minimum of 95% relative density before placing and compacting new fill.

- G. Fill occurring under supported concrete entrance platforms shall be loose forming, not tamped. Fill under other slabs shall be thoroughly compacted to 95% capacity at optimum moisture content as determined by the ASTM D 1557 (Modified Proctor). Existing soils within the building limits (upper 6") shall be compacted to a minimum of 95% relative density before placing and compacting new fill.

### **3.06 CLEANING**

- A. All debris (trees, stumps, roots, paving, rocks, stone, concrete, etc.) shall be entirely removed from the premises.
- B. Good excavated materials remaining at completion of work (clay, sand, topsoil -no trees, roots, limbs, etc.), shall be neatly and seperately stockpiled in areas on site as directed by Owner. Contractor shall grade level and seed excess materials not scheduled for re-use. If no areas are available on site for distribution, Contractor shall remove.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

**END OF SECTION**

**SECTION 329219  
SEEDING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Preparation of subsoil.
- B. Sodding or Hydroseeding, mulching, and fertilizer.

**1.02 RELATED REQUIREMENTS**

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 312200 - Grading

**1.03 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Seed mix design, fertilizer
- C. Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer .

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable. Deliver seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

**PART 2 PRODUCTS**

**2.01 REGULATORY REQUIREMENTS**

- A. Comply with regulatory agencies for fertilizer and herbicide composition.

**2.02 SEED MIXTURE**

- A. Hydroseeding - The following is a suggested seed mix design. The Contractor shall submit for review and approval to the Architect during shop drawing stage, the mix that best suits the site conditions and performs best to insure growth, durability, density and longevity.
  - 1. 20% Baron Ky Bluegrass
  - 2. 15% Kenblue/Newport KY Bluegrass
  - 3. 35% Shadow/Jamestown Chewing Fescue
  - 4. 30% Palmer/Citation II Per Ryegrass
    - a. Maximum weed content shall be .05%, purity 90% and germination 85%.

**2.03 ACCESSORIES**

- A. Mulching Material: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.
- B. Fertilizer: Recommended for grass, with fifty percent of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil, to the following proportions:
  - 1. Nitrogen: 24 percent.
  - 2. Phosphoric Acid: 25 percent.
  - 3. Soluble Potash: 4 percent.
- C. Water: Clean, fresh and free of substances or matter that could inhibit vigorous growth of grass.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that prepared soil base is ready to receive the work of this Section.

#### **3.02 PREPARATION**

- A. Prepare subgrade in accordance with Section 312200.
- B. Place topsoil in accordance with Section 312200.

#### **3.03 FERTILIZING**

- A. Spread fertilizer with mechanical spreader at a rate of 20 lbs. per 1,000 sq. ft., and/or at rate as recommended by seed manufacturer - incorporate into top soil to a depth of 2 inches or if Hydroseeding, incorporate in the Hydro-Slurry mix at a rate of four hundred pounds per acre.
- B. Apply after smooth raking of topsoil and prior to roller compaction.
- C. Do not apply fertilizer at same time or with same machine as will be used to apply seed.
- D. Mix thoroughly into upper 2 inches (50 mm) of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

#### **3.04 HYDROSEEDING**

- A. Seed - sown evenly at a minimum rate of 6 lbs. per 1,000 sq. ft. and as recommended by manufacturer. Apply seed mixture by Hydro-seeding.
- B. Do not hydroseed area in excess of that which can be mulched on same day.
- C. Immediately following seeding, apply mulch to a thickness of 1/8 inches (3 mm). Maintain clear of shrubs and trees.
- D. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches (100 mm) of soil.
- E. Following germination, immediately re-seed areas without germinated seeds that are larger than 4 by 4 inches (100 by 100 mm).
- F. Owner will assume maintenance of seeded area, regarding watering and mowing.
- G. After a suitable period of time for normal germination and growth to begin, Contractor shall re-check job with Owner and re-seed where required to establish a final dense lawn.

#### **3.05 PROTECTION**

- A. Identify seeded areas with stakes and string around area periphery.

#### **3.06 CLEAN-UP**

- A. Any paved areas which hauling operations are conducted shall be cleaned daily. Any top soil or other dirt or debris which may be dropped on the surface shall be removed promptly. As the various sections of work are completed, the ground shall be cleared of all debris and surplus materials resulting from the Landscape Contractor's operations.

**END OF SECTION**