

SPECIFICATIONS FOR

KITCHEN CAFETERIA UPDATES & RELATED WORK

AT

IDA HIGH SCHOOL
3143 PRAIRIE STREET, IDA, MI 48140
FILE #25002

FOR

IDA PUBLIC SCHOOLS

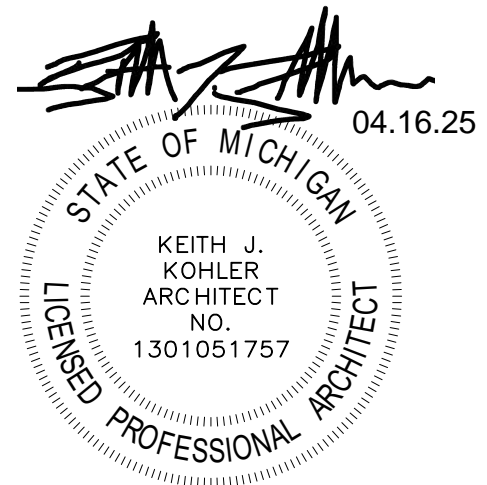
3145 PRAIRIE ST., IDA, MI. 48140

APRIL 16, 2025



KOHLER
ARCHITECTURE

1110 WEST FRONT STREET
MONROE, MICHIGAN 48161
WWW.KOHLERARCHITECT.NET



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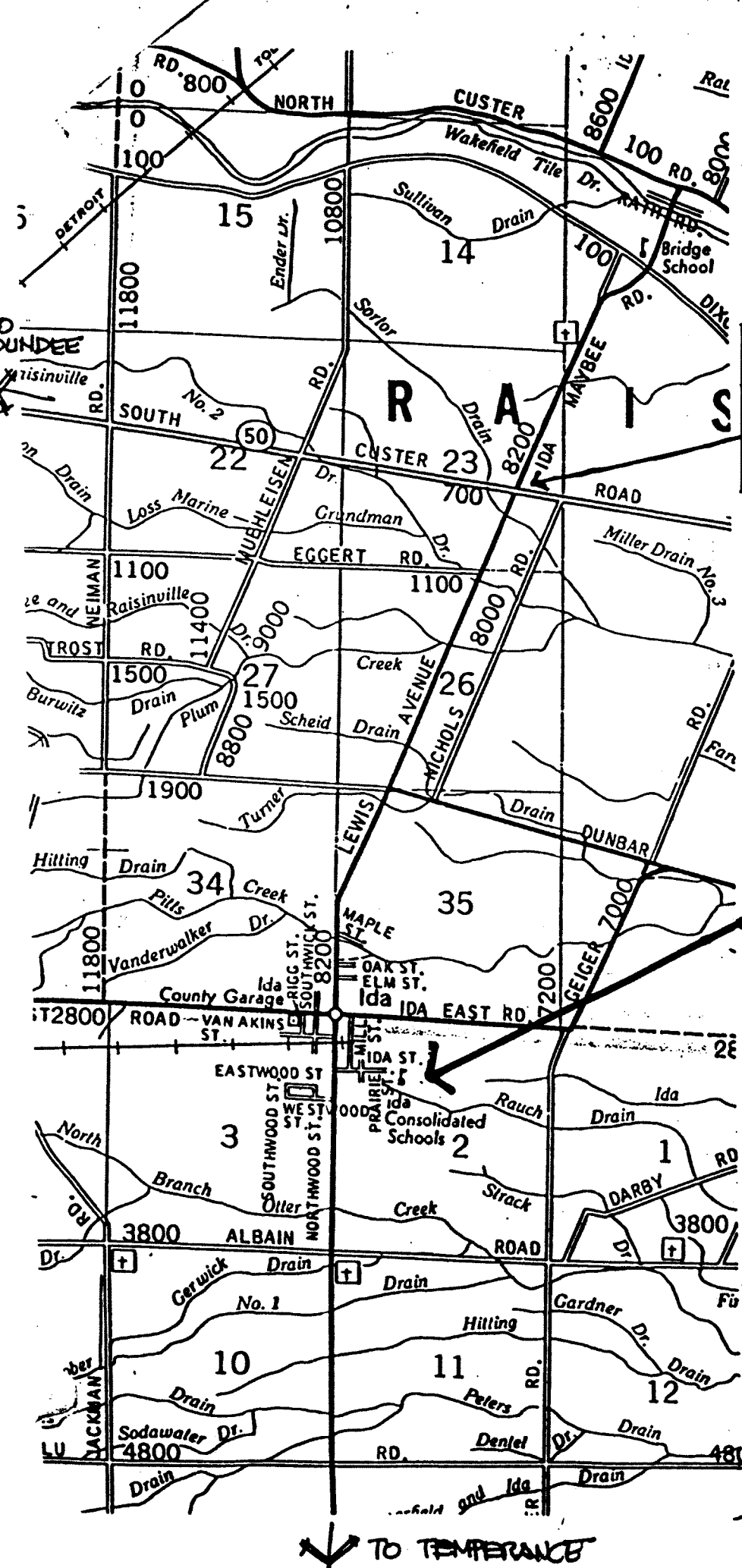
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END OF SECTION



**YELLOW
FLASHING
TRAFFIC
LIGHT**

**IDA HIGH SCHOOL
SUPERINTENDENT'S OFFICE
3145 PRAIRIE ST.
IDA, MI**



TO TEMPERANCE

ADVERTISEMENT FOR BIDS

OWNER: Ida Public Schools
3145 Prairie Street
Ida, MI. 48140
Phone: (734) 269-9003

ARCHITECT:



PROPOSALS: Separate sealed proposals for Prime Contractors are invited for the following construction work: (#25002) **Kitchen Cafeteria Updates and Related Work at Ida High School**, 3145 Prairie Street, Ida, MI, 48140 for Ida Public Schools, Ida, MI. Proposals are to be separate per project 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, May 7, 2025 at 3:30 P.M.**, at the Ida Public Schools High School Superintendent's Office, 3145 Prairie Street, Ida, MI 48140. 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 Ida Public Schools website at <https://www.idaschools.org/district/administration/business-office/>. 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 **Thursday, April 17, 2025 at 1:00 P.M.** Check-In at front Main Office at High School.

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 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 pre-approval information as listed in Instructions to bidders Art. 19 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 forty-five (45) 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.

BIDDER'S QUALIFICATIONS: All bidders must comply with the following:

1. The main office of all Contractors, Sub-Contractors, and other bidders shall be located within approximately a fifty (50) mile radius from job site.
2. The prime contractor shall have been in business under its present name and ownership for the last five (5) years and have completed four (4) recent similar projects.
3. All contractors / subcontractors must be in compliance with the criminal / security requirements under the Michigan School Safety Legislation Article 2 of 1994 PA 295, as amended.

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:

#25002 – Kitchen Cafeteria Updates and Related Work at Ida High School, 3143 Prairie St., Ida, MI. 48140 for Ida Public Schools, 3145 Prairie St., Ida, MI. 48140

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

(\$_____) inclusive of all work for Architect's project #25002 (Ida High School)

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 45 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 Division #1 for Liquidated Damages and Instructions to Bidders for Architect's Inspections and Additional Services.)

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.**

PROPOSAL FORM
(Submit in Duplicate)

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 as noted in IB-Art.16, item 7; and, (2) Qualification of Bidders as noted in IB-Art. 11, submit herein with this proposal, AIA Contractor Qualification Form #A-305,1986 completely filled out and signed;

(PLEASE PRINT OR TYPE)

Date _____	Firm _____
Address _____	By _____
_____	Signature _____
Phone _____	Title _____

STATEMENT REGARDING FAMILIAL RELATIONSHIP

AFFIDAVIT OF _____
(insert name of affiant)

STATE OF MICHIGAN)
)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)

Ida 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,

Michigan, on the ____ day of _____, 2025.

_____ (signature)

_____ (printed)

Notary public, State of Michigan, 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 MICHIGAN)
)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)
Ida 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,

Michigan, on the ____ day of _____, 2025.

_____ (signature)

_____ (printed)

Notary public, State of Michigan, County of _____

My Commission expires on _____

Acting in the County of _____

2025 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.

<u>Description</u>	<u>Date</u>
Advertise	April 14
Out for Bids	April 16
Mandatory Pre-bid Meeting	April 17 @ 1:00pm (Check in at main office at High School)
Official Bidders List	April 17
Bids Due	May 7 @ 3:30pm (Ida High School Superintendent Office)
Post Bid Interviews	May 8
Architect Recommendation	May 9
Owner Awards Project At Ida BOE Meeting	May 12
Notice to Proceed Letters	May 13
Pre-Construction Meeting	TBD
Project Staggering	June 12
Physical Construction	June 13 – August 19
Substantial Completion	August 15
Final Completion	September 1

Files: \Documents\Specifications\25002 Project Schedule



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

**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 Ida Public Schools website at <https://www.idaschools.org/district/administration/business-office/> 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. 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:
Pam Oberski, Food Service Director, Ida Public Schools, 3145 Prairie Street, Ida , MI 48140 (Phone: 734-868-6117).

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) 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



IDA PUBLIC SCHOOLS
Conviction Disclosure Form – New Employees

I UNDERSTAND THAT THE INFORMATION REQUESTED IS REQUIRED BY THE CENTRAL RECORDS DIVISION OF THE MICHIGAN STATE POLICE, LANSING, MICHIGAN. I FURTHER UNDERSTAND THAT A CONVICTION RECORD DOES NOT NECESSARILY PREVENT ACCEPTANCE OF EMPLOYMENT. I AUTHORIZE IDA PUBLIC SCHOOLS TO UTILIZE THE INFORMATION BELOW FOR THE PURPOSE OF OBTAINING INFORMATION REGARDING A CRIMINAL CONVICTION.

Name: _____

Last

First

Middle

Maiden name or names previously used: _____

Birthdate: _____ Race: _____ Sex: _____

Building: _____ Assignment: _____

Pursuant to Public Act 138 of 2005, I represent that (check all that apply):

- _____ 1. I have not been convicted of or pled guilty or nolo contendere (no contest) or am the subject of a finding of guilt by a judge or jury of any crime.
- _____ 2. I have been convicted of, or pled guilty or nolo contendere (no contest) or am the subject of a finding of guilt by a judge or jury for the following crimes (attach a separate sheet of paper to explain the criminal offense, date, court, city/state, and circumstances surrounding the conviction):
- Felony _____ Misdemeanor _____
- Felony _____ Misdemeanor _____
- Felony _____ Misdemeanor _____

In signing this form, I understand and agree that:

3. If I have been convicted of a listed offense, my employment shall be terminated. I also understand that if I have been convicted of a felony, other than a listed offense, the superintendent, or chief administrator and the School Board must approve, in writing, my employment or work assignment.
4. Until the criminal history report is received and reviewed by the employing school district, I am regarded as a conditional employee and if the criminal history report is not the same as my representation(s) above, my employment contract is voided at the option of the school district.

Signature

Date

**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, 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-Builts - 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-Builts 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 **Ida 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 Federal and State Department of Labor, per the Federal Register (for prevailing rates for this project, see attached sheet at the end of this section. Contractor's labor rates must be submitted with each pay request. HUD Form WH 347 (available at the Architect's office) or another form similar with same information shall be used.
 - 2. 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 the State of Michigan, DELEG, Wage and Hour Division at address as listed on the rate schedule.

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 **05-09-2025** shall be used.
- E. Physical Work shall begin as soon as weather permits starting **06-12-2025** 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 **08-15-2025, 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 and Patching, 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. 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.
- E. 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.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR AND ECONOMIC OPPORTUNITY
WAGE AND HOUR DIVISION

SUSAN CORBIN
DIRECTOR

Prevailing Wage Rates for State Funded Projects Official Rate Schedule

ORS#:	ORS-002238
Date Issued:	03/24/2025
Contract Award By Date:	06/22/2025
Contracting Agency:	Ida Public Schools (CA-0258)
Contracting Agency Representative:	Pam Oberski (oberski@idaschools.org)
Project Number:	25002
Project Name:	High School kitchen remodeling

Project Description: Upgrades to an existing high school kitchen to maximize efficiency and safety for the staff. Construction includes new interior finishes, fixtures, kitchen equipment and a new kitchen exhaust hood.

FOR ALL AWARDED CONTRACTS ONLY

- Every Contractor and Subcontractors shall keep Posted on the Construction Site, in a conspicuous place, a copy of all applicable prevailing wage rate schedules contained in a contract.
- The Prevailing rate schedule provides an hourly rate which includes wage and fringe benefit totals for designated classifications.
- Please refer to WHD-9917 & WHD 9918 for any additional information.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Boilermaker	Boilermaker	05/10/2024

Classification Description: Boilermaker

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$47.24	\$70.27	\$93.29
Apprentice: 1st 6 months	\$30.47	\$45.11	\$59.75
Apprentice: 2nd 6 months	\$31.22	\$46.24	\$61.25
Apprentice: 3rd 6 months	\$39.72	\$58.99	\$78.25
Apprentice: 4th 6 months	\$40.47	\$60.11	\$79.75
Apprentice: 5th 6 months	\$41.22	\$61.24	\$81.25
Apprentice: 6th 6 months	\$42.73	\$63.51	\$84.27
Apprentice: 7th 6 months	\$44.23	\$65.75	\$87.27
Apprentice: 8th 6 months	\$45.74	\$68.02	\$90.29

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$62.28
10th hour	\$62.28
Beyond 10 hours	\$62.28

Saturday

First 8 hours	\$62.28
9th hour	\$62.28
10th hour	\$62.28
Beyond 10 hours	\$62.28

Sunday/Holiday	\$77.32
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Carpenter/Piledriver-687-Z1	Carpenter	09/16/2024

Classification Description: Carpenter/Piledriver

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$72.05	\$92.86	\$113.66
Apprentice: 1st year	\$47.22	\$59.81	\$72.39
Apprentice: 2nd year	\$53.43	\$68.07	\$82.71
Apprentice: 3rd year	\$59.64	\$76.34	\$93.03
Apprentice: 4th year	\$65.85	\$84.60	\$103.35

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$92.86
10th hour	\$92.86
Beyond 10 hours	\$92.86

Saturday

First 8 hours	\$92.86
9th hour	\$92.86
10th hour	\$92.86
Beyond 10 hours	\$92.86

Sunday/Holiday	\$113.66
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Yes, but Saturdays may not be used as a make-up day. One and a half (1 ½) the straight time rate applies to all Saturday hours, and those over 40 hours per week. Double time applies on all Sundays, Holidays, and all time over 12 hours per day.

Base Rate Comment: 4-10s allowed Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Carpet & Resilient Floor Layer	Carpenter	05/10/2024

Classification Description: Carpet and Resilient Floor Layer, (does not include installation of prefabricated formica & parquet flooring which is to be paid carpenter rate)

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$64.51	\$82.93	\$101.34
Apprentice: Apprentice 1st Year	\$42.73	\$53.88	\$65.03
Apprentice: Apprentice 2nd Year	\$48.17	\$61.14	\$74.10
Apprentice: Apprentice 3rd Year	\$53.61	\$68.39	\$83.17
Apprentice: Apprentice 4th Year	\$59.07	\$75.67	\$92.27

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$64.51
10th hour	\$64.51
Beyond 10 hours	\$82.92

Saturday

First 8 hours	\$82.92
9th hour	\$82.92
10th hour	\$82.92
Beyond 10 hours	\$101.34

Sunday/Holiday	\$0.00
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Diver Tender-687-Z1	Carpenter	09/16/2024

Classification Description: Journeyman-Diver Tender

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$71.16	\$91.97	\$112.77

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$91.97
10th hour	\$91.97
Beyond 10 hours	\$91.97

Saturday

First 8 hours	\$91.97
9th hour	\$91.97
10th hour	\$91.97
Beyond 10 hours	\$91.97

Sunday/Holiday	\$112.77
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Yes, but Saturdays may not be used as a make-up day. One and a half (1 ½) the straight time rate applies to all Saturday hours, and those over 40 hours per week. Double time applies on all Sundays, Holidays, and all time over 12 hours per day.

Overtime Rate Comment: Double time over 12 hours/day.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Cement Mason	Cement Mason	05/10/2024

Classification Description: Cement Mason

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$57.53	\$85.95	\$114.36
Apprentice: 1st year	\$43.16	\$54.20	\$65.23
Apprentice: 2nd year	\$46.31	\$58.92	\$71.53
Apprentice: 3rd year	\$49.47	\$63.66	\$77.85

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$73.30
10th hour	\$73.30
Beyond 10 hours	\$89.06

Saturday

First 8 hours	\$73.30
9th hour	\$73.30
10th hour	\$89.06
Beyond 10 hours	\$89.06

Sunday/Holiday	\$89.06
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 tens allowed M-Th, Friday makeup day

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Communication Technician	Communication Technician	05/13/2024

Classification Description:

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.89	\$98.24	\$128.58

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24

Saturday

First 8 hours	\$98.24
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24

Sunday/Holiday	\$128.58
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

ONLY due to inclement weather or customer requirements may Friday be used as a make up day if the normal scheduled work week was interrupted and time lost of five (5) hours or more was incurred by workmen covered under the terms of the 6-17-C/6-876-T agreement.

Base Rate Comment: Foreman (112.5% above JL Rate)

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Diver-687-Z1	Diver	10/01/2024

Classification Description: Diver

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$82.48	\$107.41	\$132.34

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$107.41
10th hour	\$107.41
Beyond 10 hours	\$107.41

Saturday

First 8 hours	\$107.41
9th hour	\$107.41
10th hour	\$107.41
Beyond 10 hours	\$107.41

Sunday/Holiday	\$132.34
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Yes, but Saturdays may not be used as a make-up day. One and a half (1 ½) the straight time rate applies to all Saturday hours, and those over 40 hours per week. Double time applies on all Sundays, Holidays, and all time over 12 hours per day.

Overtime Rate Comment: Double time due when over 12 hours worked per day

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Drywall Taper	Drywall	05/10/2024

Classification Description: Drywall Taper

Four 10s allowed Monday-Thursday

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.91	\$59.74	\$73.56
Apprentice: 4th 6 months	\$41.76	\$53.51	\$65.26
Apprentice: First 3 months	\$32.08	\$38.99	\$45.90
Apprentice: Second 3 months	\$34.85	\$43.14	\$51.44
Apprentice: Second 6 months	\$37.62	\$47.30	\$56.98
Apprentice: Third 6 months	\$40.38	\$51.44	\$62.50

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$59.74
10th hour	\$59.74
Beyond 10 hours	\$73.56

Saturday

First 8 hours	\$59.74
9th hour	\$73.56
10th hour	\$73.56
Beyond 10 hours	\$73.56

Sunday/Holiday	\$73.56
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Four 10-hour days allowed? - Yes**Make Up Day Allowed?** - Yes

Friday make-up day for bad weather or holidays

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Drywaller	Drywall	05/10/2024

Classification Description: Drywaller

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.78	\$63.89	\$78.00
Apprentice: 1st 6 months	\$33.49	\$41.96	\$50.42
Apprentice: 2nd 6 months	\$34.90	\$44.07	\$53.24
Apprentice: 3rd 6 months	\$36.31	\$46.18	\$56.06
Apprentice: 4th 6 months	\$37.72	\$48.30	\$58.88
Apprentice: 5th 6 months	\$39.14	\$50.43	\$61.72
Apprentice: 6th 6 months	\$40.55	\$52.54	\$64.54
Apprentice: 7th 6 months	\$41.96	\$54.66	\$67.36
Apprentice: 8th 6 months	\$43.37	\$56.78	\$70.18

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$63.89
10th hour	\$63.89
Beyond 10 hours	\$78.00

Saturday

First 8 hours	\$63.89
9th hour	\$63.89
10th hour	\$63.89
Beyond 10 hours	\$78.00

Sunday/Holiday	\$78.00
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Inside Wireman Class 1A-IBEW-8	Electrician	01/23/2025

Classification Description: Inside Wireman 4 consecutive 10 hour days may be worked at the straight time rate of pay Mon-Fri.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.64	\$110.47	\$147.28
Apprentice: 1st 0-900 Hours	\$35.49	\$53.24	\$70.98
Apprentice: 2nd 901-1800 Hours	\$35.49	\$53.24	\$70.98
Apprentice: 3rd 1801-3300 Hours	\$43.86	\$65.80	\$87.72
Apprentice: 4th 3301-4800 Hours	\$49.81	\$74.73	\$99.62
Apprentice: 5th 4801-6300 Hours	\$55.78	\$83.67	\$111.56
Apprentice: 6th 6301-8000 Hours	\$61.72	\$92.59	\$123.44

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$97.84
10th hour	\$97.84
Beyond 10 hours	\$97.84

Saturday

First 8 hours	\$97.84
9th hour	\$97.84
10th hour	\$97.84
Beyond 10 hours	\$97.84

Sunday/Holiday	\$122.04
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Any day except Sunday when work cancelled due to weather conditions

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Inside Wireman Class 1B-IBEW-8	Electrician	01/23/2025

Classification Description: Journeyman Inside Wireman Class 1B

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.55	\$110.34	\$147.10

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$96.75
10th hour	\$96.75
Beyond 10 hours	\$96.75

Saturday

First 8 hours	\$96.75
9th hour	\$96.75
10th hour	\$96.75
Beyond 10 hours	\$96.75

Sunday/Holiday	\$119.95
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Inside Wireman Class 1C-IBEW-8	Electrician	01/23/2025

Classification Description: Journeyman Inside Wireman Class 1B

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.50	\$110.26	\$147.00

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$96.20
10th hour	\$96.20
Beyond 10 hours	\$96.20

Saturday

First 8 hours	\$96.20
9th hour	\$96.20
10th hour	\$96.20
Beyond 10 hours	\$96.20

Sunday/Holiday	\$118.90
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Inside Wireman Class 1D-IBEW-8	Electrician	01/23/2025

Classification Description: Journeyman Inside Wireman Class 1D

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.44	\$110.17	\$146.88

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$95.39
10th hour	\$95.39
Beyond 10 hours	\$95.39

Saturday

First 8 hours	\$95.39
9th hour	\$95.39
10th hour	\$95.39
Beyond 10 hours	\$95.39

Sunday/Holiday	\$117.34
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JA-IBEW-8Electrician		01/22/2025

Classification Description: Journeyman - Voice, Data, & Video - Class 4JA (less than 2 yrs); BICSI Cert, Technician Cert.

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$53.29	\$79.95	\$106.58	Over 8-hour day/40-hour week
Apprentice: Class 4JA-NICET II Cert (fewer than 2 years)	\$52.24	\$78.37	\$104.48	9th hour \$69.87
Apprentice: Class 4JA-Specialty Cert, Technician Cert	\$52.61	\$78.92	\$105.22	10th hour \$69.87
Apprentice: Voice, Data & Video 5th Period 3000-3749 hrs	\$44.29	\$66.45	\$88.58	Beyond 10 hours \$69.87
Apprentice: Voice, Data, & Video 1ST Period 0-749 hrs	\$24.16	\$36.25	\$48.32	Saturday
Apprentice: Voice, Data, & Video 2ND Period 750-1499 hrs	\$28.01	\$42.03	\$56.02	First 8 hours \$69.87
Apprentice: Voice, Data, & Video 3RD Period 1500-2499 hrs	\$40.83	\$61.26	\$81.66	9th hour \$69.87
Apprentice: Voice, Data, & Video 4th Period 2500-2999 hrs	\$42.56	\$63.85	\$85.12	10th hour \$69.87
Apprentice: Voice, Data, & Video 6th Period 3750-4499 hrs	\$46.02	\$69.04	\$92.04	Beyond 10 hours \$69.87
Apprentice: Voice, Data, & Video 7th Period 4500-5249 hrs	\$47.74	\$71.62	\$95.48	Sunday/Holiday \$86.45
Apprentice: Voice, Data, & Video 8th Period 5250-5999 hrs	\$49.47	\$74.22	\$98.94	

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JB-IBEW-8Electrician		01/22/2025

Classification Description: Journeyman - Voice, Data, & Video - Class 4JB (at least 2 yrs); BICSI Cert, Technician Cert.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.24	\$79.87	\$106.48
Apprentice: Class 4JB-NICET II Cert, Technician Cert	\$52.20	\$78.31	\$104.40
Apprentice: Class 4JB-Specialty Cert, Technician Cert	\$52.61	\$78.92	\$105.22

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$69.32
10th hour	\$69.32
Beyond 10 hours	\$69.32

Saturday

First 8 hours	\$69.32
9th hour	\$69.32
10th hour	\$69.32
Beyond 10 hours	\$69.32

Sunday/Holiday	\$85.40
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JC-IBEW-8Electrician		01/22/2025

Classification Description: Journeyman - Voice, Data, & Video - Class 4JC (3+ years); BICSI Cert, Technician Cert.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.20	\$79.81	\$106.40
Apprentice: Class 4JC-NICET II Cert, Technician Cert	\$52.15	\$78.23	\$104.30
Apprentice: Class 4JC-Specialty Cert, Technician Cert	\$52.52	\$78.79	\$105.04

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$68.78
10th hour	\$68.78
Beyond 10 hours	\$68.78

Saturday

First 8 hours	\$68.78
9th hour	\$68.78
10th hour	\$68.78
Beyond 10 hours	\$68.78

Sunday/Holiday	\$84.36
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JD-IBEW-8	Electrician	01/22/2025

Classification Description: Teledata Journeyman Installer Technician - Class4JD (at least 4 years); BICSI Cert, Technician Cert. Voice, Data and Video

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.15	\$79.73	\$106.30
Apprentice: 1st Period 0-749 hours	\$23.24	\$31.54	\$39.83
Apprentice: 2nd Period 750-1499 hours	\$26.92	\$36.72	\$46.52
Apprentice: 3rd Period 1500-2249 hours	\$40.48	\$51.79	\$63.10
Apprentice: 4th Period 2250-2999 hours	\$42.15	\$54.22	\$66.28
Apprentice: 5th Period 3000-3749 hours	\$43.82	\$56.64	\$69.46
Apprentice: 6th Period 3750-4499 hours	\$45.49	\$59.06	\$72.63
Apprentice: Class 4JD-NICET II Cert, Technician Cert	\$52.11	\$78.18	\$104.22
Apprentice: Class 4JD-Specialty Cert, Technician Cert	\$52.47	\$77.38	\$103.16

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$68.23
10th hour	\$68.23
Beyond 10 hours	\$68.23

Saturday

First 8 hours	\$68.23
9th hour	\$68.23
10th hour	\$68.23
Beyond 10 hours	\$68.23

Sunday/Holiday	\$83.31
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: Four tens may be worked any 4 consecutive days Monday thru Friday.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JD-IBEW-8	Electrician	01/22/2025

Classification Description: Teledata Journeyman Installer Technician - Class4JD (at least 4 years); BICSI Cert, Technician Cert. Voice, Data and Video

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.43	\$61.84	\$75.24
Apprentice: 1st Period 0-749 hours	\$21.95	\$29.60	\$37.25
Apprentice: 2nd Period 750-1499 hours	\$25.40	\$34.44	\$43.48
Apprentice: 3rd Period 1500-2249 hours	\$38.72	\$49.15	\$59.58
Apprentice: 4th Period 2250-2999 hours	\$40.27	\$51.40	\$62.52
Apprentice: 5th Period 3000-3749 hours	\$41.82	\$53.64	\$65.46
Apprentice: 6th Period 3750-4499 hours	\$43.38	\$55.89	\$68.41

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$61.84
10th hour	\$61.84
Beyond 10 hours	\$61.84

Saturday

First 8 hours	\$61.84
9th hour	\$61.84
10th hour	\$61.84
Beyond 10 hours	\$61.84

Sunday/Holiday	\$75.24
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JD-IBEW-8	Electrician	01/22/2025

Classification Description: Teledata Journeyman Installer Technician - Class4JD (at least 4 years); BICSI Cert, Technician Cert. Voice, Data and Video

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$46.43	\$59.84	\$73.24
Apprentice: 1st Period 0-749 hours	\$21.95	\$29.60	\$37.25
Apprentice: 2nd Period 750-1499 hours	\$25.40	\$34.44	\$43.48
Apprentice: 3rd Period 1500-2249 hours	\$38.72	\$49.15	\$59.58
Apprentice: 4th Period 2250-2999 hours	\$40.27	\$51.40	\$62.52
Apprentice: 5th Period 3000-3749 hours	\$41.82	\$53.64	\$65.46
Apprentice: 6th Period 3750-4499 hours	\$43.38	\$55.89	\$68.41

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$59.84
10th hour	\$59.84
Beyond 10 hours	\$59.84

Saturday

First 8 hours	\$59.84
9th hour	\$59.84
10th hour	\$59.84
Beyond 10 hours	\$59.84

Sunday/Holiday	\$73.24
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice, Data, & Video - Class 4JD-IBEW-8	Electrician	01/22/2025

Classification Description: Teledata Journeyman Installer Technician - Class4JD (at least 4 years); BICSI Cert, Technician Cert. Voice, Data and Video

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$46.39	\$59.30	\$72.20
Apprentice: 1st Period 0-749 hours	\$21.95	\$29.60	\$37.25
Apprentice: 2nd Period 750-1499 hours	\$25.40	\$34.44	\$43.48
Apprentice: 3rd Period 1500-2249 hours	\$38.72	\$49.15	\$59.58
Apprentice: 4th Period 2250-2999 hours	\$40.27	\$51.40	\$62.52
Apprentice: 5th Period 3000-3749 hours	\$41.82	\$53.64	\$65.46
Apprentice: 6th Period 3750-4499 hours	\$43.38	\$55.89	\$68.41

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$59.30
10th hour	\$59.30
Beyond 10 hours	\$59.30

Saturday

First 8 hours	\$59.30
9th hour	\$59.30
10th hour	\$59.30
Beyond 10 hours	\$59.30

Sunday/Holiday	\$72.20
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Voice,Data & Video Cable puller-IBEW-8	Electrician	01/22/2025

Classification Description: The primary function is to install various types of cables, such as those for telecommunications (voice), computer networking (data), and video systems (e.g., coaxial cables for TV) and to efficiently pull cables through conduits, walls, ceilings, or other difficult-to-reach areas during installation.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$18.55	\$27.83	\$37.10
Apprentice: 0-500 hours	\$13.77	\$20.66	\$27.54
Apprentice: 501-1000 hours	\$16.02	\$24.03	\$32.04

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$26.15
10th hour	\$26.15
Beyond 10 hours	\$26.15

Saturday

First 8 hours	\$26.15
9th hour	\$26.15
10th hour	\$26.15
Beyond 10 hours	\$26.15

Sunday/Holiday

\$33.75

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Elevator Constructor Mechanic	Elevator Constructor	05/10/2024

Classification Description: Elevator Constructor Mechanic

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.53	\$0.00	\$122.30
Apprentice: 1st year	\$55.41	\$0.00	\$80.03
Apprentice: 2nd year	\$60.33	\$0.00	\$89.43
Apprentice: 3rd year	\$62.79	\$0.00	\$94.13
Apprentice: 4th year	\$67.71	\$0.00	\$103.53

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$122.30
10th hour	\$122.30
Beyond 10 hours	\$122.30

Saturday

First 8 hours	\$122.30
9th hour	\$122.30
10th hour	\$122.30
Beyond 10 hours	\$122.30

Sunday/Holiday	\$122.30
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Fiber Optic Splicer	Fiber Optic Splicer	05/13/2024

Classification Description:

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.89	\$98.24	\$128.58

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24

Saturday

First 8 hours	\$98.24
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24

Sunday/Holiday	\$128.58
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

ONLY due to inclement weather or customer requirements may Friday be used as a make up day if the normal scheduled work week was interrupted and time lost of five (5) hours or more was incurred by workmen covered under the terms of the 6-17-C/6-876-T agreement.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
DEMOLITION LABORER FOREMAN	Foreman	08/02/2024

Classification Description: DEMOLITION LABORER FOREMAN

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.33	\$71.40	\$88.46

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$71.40
10th hour	\$71.40
Beyond 10 hours	\$71.40

Saturday

First 8 hours	\$71.40
9th hour	\$54.33
10th hour	\$54.33
Beyond 10 hours	\$54.33

Sunday/Holiday	\$88.46
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: 2nd Shift: \$1.00 per hour additional premium. 3rd Shift: \$1.50 per hour additional premium.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer	Foreman	08/02/2024

Classification Description: Laborer Foreman

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.33	\$71.40	\$88.46

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$71.40
10th hour	\$71.40
Beyond 10 hours	\$71.40

Saturday

First 8 hours	\$71.40
9th hour	\$54.33
10th hour	\$54.33
Beyond 10 hours	\$54.33

Sunday/Holiday	\$88.46
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: Laborer Foreman Rate: \$2.00 over Construction Laborer Rate. 2nd Shift: \$1.00 per hour additional premium. 3rd Shift: \$1.50 per hour additional premium.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Glazier	Glazier	05/10/2024

Classification Description: Glazier

If 4 10 hour day workweek is scheduled, four 10s must be consecutive, M-F.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.55	\$70.10	\$86.65
Apprentice: 1st 6 months	\$37.00	\$45.27	\$53.55
Apprentice: 2nd 6 months	\$37.75	\$46.40	\$55.05
Apprentice: 3rd 6 months	\$41.97	\$52.73	\$63.49
Apprentice: 4th 6 months	\$43.62	\$55.21	\$66.79
Apprentice: 5th 6 months	\$45.27	\$57.68	\$70.09
Apprentice: 6th 6 months	\$46.93	\$60.17	\$73.41
Apprentice: 7th 6 months	\$48.59	\$62.66	\$76.73
Apprentice: 8th 6 months	\$51.89	\$67.61	\$83.33

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$70.10
10th hour	\$70.10
Beyond 10 hours	\$70.10

Saturday

First 8 hours	\$70.10
9th hour	\$70.10
10th hour	\$70.10
Beyond 10 hours	\$70.10

Sunday/Holiday	\$86.65
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Heat & Frost Insulator	Heat and Frost Insulator	05/10/2024

Classification Description: Heat and Frost Insulators

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$63.06	\$94.32	\$125.58
Apprentice: 10th period	\$56.37	\$82.94	\$109.50
Apprentice: 1st - 2nd period	\$36.62	\$53.76	\$70.90
Apprentice: 3rd period	\$39.69	\$58.36	\$77.03
Apprentice: 4th period	\$41.36	\$60.86	\$80.37
Apprentice: 5th period	\$43.03	\$63.37	\$83.71
Apprentice: 6th period	\$44.69	\$65.86	\$87.03
Apprentice: 7th period	\$51.37	\$75.44	\$107.84
Apprentice: 8th period	\$53.04	\$77.95	\$102.84
Apprentice: 9th period	\$54.71	\$80.46	\$106.18

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$79.73
10th hour	\$79.73
Beyond 10 hours	\$79.73

Saturday

First 8 hours	\$79.73
9th hour	\$79.73
10th hour	\$79.73
Beyond 10 hours	\$79.73

Sunday/Holiday	\$96.40
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker	Ironworker	05/10/2024

Classification Description: Ironworker

Four tens allowed M-Th.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.24	\$73.86	\$98.48
Apprentice: 1st year	\$36.67	\$48.73	\$60.79
Apprentice: 2nd year	\$49.71	\$69.53	\$88.51
Apprentice: 3rd year	\$53.26	\$79.90	\$106.52
Apprentice: 4th year	\$56.81	\$85.23	\$113.62

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$63.80
10th hour	\$63.80
Beyond 10 hours	\$78.36

Saturday

First 8 hours	\$63.80
9th hour	\$78.36
10th hour	\$78.36
Beyond 10 hours	\$78.36

Sunday/Holiday	\$78.36
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Friday for inclement weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker - MF	Ironworker	05/10/2024

Classification Description: Metal Fence & Guard Rail

Four tens allowed M-Th

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.87	\$59.81	\$79.74
Apprentice: 1st year	\$19.57	\$29.36	\$39.14
Apprentice: 2nd year	\$33.87	\$50.81	\$67.74
Apprentice: 3rd year	\$35.87	\$53.81	\$71.74
Apprentice: 4th year	\$37.87	\$56.81	\$75.74

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$49.87
10th hour	\$49.87
Beyond 10 hours	\$59.87

Saturday

First 8 hours	\$49.87
9th hour	\$49.87
10th hour	\$49.87
Beyond 10 hours	\$49.87

Sunday/Holiday	\$59.87
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Friday for inclement weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker - PE	Ironworker	05/10/2024

Classification Description: Pre-engineered Metal Building

Four tens allowed M-Th

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$43.17	\$64.76	\$86.34
Apprentice: 1st year	\$21.55	\$32.33	\$43.10
Apprentice: 2nd year	\$36.09	\$54.13	\$72.18
Apprentice: 3rd year	\$38.45	\$57.67	\$76.90
Apprentice: 4th year	\$40.81	\$61.21	\$81.62

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$54.97
10th hour	\$54.97
Beyond 10 hours	\$66.76

Saturday

First 8 hours	\$54.97
9th hour	\$66.76
10th hour	\$66.76
Beyond 10 hours	\$66.76

Sunday/Holiday	\$66.76
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Friday for inclement weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker Foreman Class A	Ironworker	08/03/2024

Classification Description: Delegate work to Journeyman.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$68.91	\$97.10	\$125.27

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$88.44
10th hour	\$88.44
Beyond 10 hours	\$88.44

Saturday

First 8 hours	\$88.44
9th hour	\$107.96
10th hour	\$107.96
Beyond 10 hours	\$107.96

Sunday/Holiday	\$107.96
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker General Foreman Class A	Ironworker	08/03/2024

Classification Description: Delegate work to Foremans.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$72.46	\$102.42	\$132.37

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$93.76
10th hour	\$93.76
Beyond 10 hours	\$93.76

Saturday

First 8 hours	\$93.76
9th hour	\$115.06
10th hour	\$115.06
Beyond 10 hours	\$115.06

Sunday/Holiday	\$115.06
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker Journeyman Class A	Ironworker	08/03/2024

Classification Description: Delegate work to apprentices.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$65.36	\$91.77	\$118.17

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$83.11
10th hour	\$83.11
Beyond 10 hours	\$83.11

Saturday

First 8 hours	\$83.11
9th hour	\$100.86
10th hour	\$100.86
Beyond 10 hours	\$100.86

Sunday/Holiday	\$100.86
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Ironworker MF & GR Journeyman	Ironworker	08/03/2024

Classification Description: Delegation of daily work tasks to metal fence and guard rail apprentices.

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage	\$51.52	\$71.72	\$91.92	
				9th hour \$64.72
				10th hour \$64.72
				Beyond 10 hours \$64.72
				Saturday
				First 8 hours \$64.72
				9th hour \$77.92
				10th hour \$77.92
				Beyond 10 hours \$77.92
				Sunday/Holiday \$77.92

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Signal Technician	Journeyman Signal Technician	05/13/2024

Classification Description:

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.89	\$98.24	\$128.58
Apprentice: Apprentice 1st 6 months	\$43.61	\$61.82	\$80.02
Apprentice: Apprentice 2nd 6 months	\$46.65	\$66.38	\$86.10
Apprentice: Apprentice 3rd 6 months	\$49.68	\$70.92	\$92.16
Apprentice: Apprentice 4th 6 months	\$52.71	\$75.47	\$98.22
Apprentice: Apprentice 5th 6 months	\$55.75	\$80.03	\$104.30
Apprentice: Apprentice 6th 6months	\$61.82	\$89.13	\$116.44

Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24
Saturday	
First 8 hours	\$98.24
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24
Sunday/Holiday	
	\$128.58

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

ONLY due to inclement weather or customer requirements may Friday be used as a make up day if the normal scheduled work week was interrupted and time lost of five (5) hours or more was incurred by workmen covered under the terms of the 6-17-C/6-876-T agreement.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Specialist	Journeyman Specialist	05/13/2024

Classification Description:

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.98	\$111.88	\$146.76

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$111.87
10th hour	\$111.87
Beyond 10 hours	\$111.87

Saturday

First 8 hours	\$111.87
9th hour	\$111.87
10th hour	\$111.87
Beyond 10 hours	\$111.87

Sunday/Holiday	\$146.76
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

ONLY due to inclement weather or customer requirements may Friday be used as a make up day if the normal scheduled work week was interrupted and time lost of five (5) hours or more was incurred by workmen covered under the terms of the 6-17-C/6-876-T agreement.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Labor Crew Foreman	Labor Crew Foreman	05/13/2024

Classification Description:

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$61.86	\$89.19	\$116.52

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$89.19
10th hour	\$89.19
Beyond 10 hours	\$89.19

Saturday

First 8 hours	\$89.19
9th hour	\$89.19
10th hour	\$89.19
Beyond 10 hours	\$89.19

Sunday/Holiday	\$116.52
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

ONLY due to inclement weather or customer requirements may Friday be used as a make up day if the normal scheduled work week was interrupted and time lost of five (5) hours or more was incurred by workmen covered under the terms of the 6-17-C/6-876-T agreement.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Asbestos & Lead Abatement Laborer	Laborer	05/10/2024

Classification Description: Asbestos & Lead Abatement Laborer

4 ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$50.60	\$65.37	\$80.13
Apprentice: Trainee 600 hours + 1 year	\$34.07	\$18.89	\$20.54

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$65.37
10th hour	\$65.37
Beyond 10 hours	\$65.37

Saturday

First 8 hours	\$65.37
9th hour	\$65.37
10th hour	\$65.37
Beyond 10 hours	\$65.37

Sunday/Holiday	\$80.13
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
CLEANER/SWEEPER LABORER; FURNITURE MOVER	Laborer	08/02/2024

Classification Description: CLEANER/SWEEPER LABORER; FURNITURE MOVER

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$46.67	\$59.91	\$73.14

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$59.91
10th hour	\$59.91
Beyond 10 hours	\$59.91

Saturday

First 8 hours	\$59.91
9th hour	\$46.67
10th hour	\$46.67
Beyond 10 hours	\$46.67

Sunday/Holiday	\$73.14
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: 2nd Shift: \$1.00 per hour additional premium. 3rd Shift: \$1.50 per hour additional premium.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
CONSTRUCTION LABORER, CARPENTER TENDER, FIREWATCH, CONCRETE LABORER, CONCRETE CHUTE AND CONCRETE BUCKET HANDLER	Laborer	08/02/2024

Classification Description: CONSTRUCTION LABORER, CARPENTER TENDER, FIREWATCH, CONCRETE LABORER, CONCRETE CHUTE AND CONCRETE BUCKET HANDLER

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$52.33	\$68.40	\$84.46
Apprentice: 0 - 1,000 work hours	\$44.30	\$56.35	\$68.40
Apprentice: 1,001 - 2,000 work hours	\$45.90	\$58.75	\$71.60
Apprentice: 2,001 - 3,000 work hours	\$47.51	\$61.17	\$74.82
Apprentice: 3,001 - 4,000 work hours	\$50.72	\$65.98	\$81.24

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$78.50
10th hour	\$78.50
Beyond 10 hours	\$78.50

Saturday

First 8 hours	\$78.50
9th hour	\$52.33
10th hour	\$52.33
Beyond 10 hours	\$52.33

Sunday/Holiday	\$104.66
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: CONCRETE SPECIALIST rate: \$2.00 over Construction Laborer. 2nd Shift: \$1.00 per hour additional premium. 3rd Shift: \$1.50 per hour additional premium.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
DEMOLITION LABORER	Laborer	08/02/2024

Classification Description: DEMOLITION LABORER

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$52.33	\$68.40	\$84.46

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$68.40
10th hour	\$68.40
Beyond 10 hours	\$68.40

Saturday

First 8 hours	\$68.40
9th hour	\$52.33
10th hour	\$52.33
Beyond 10 hours	\$52.33

Sunday/Holiday	\$84.46
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: 2nd Shift: \$1.00 per hour additional premium; 3rd Shift: \$1.50 per hour additional premium; Ground Burner: Base Wage shall be \$1.00 per hour more than the hourly rate for a Demolition Laborer; High Burner: Base Wage shall be \$1.50 per hour more than the hourly rate for a Demolition Laborer.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - A	Laborer	05/10/2024

Classification Description: Journeyperson - building and heavy construction craft laborer, portable concrete mixer operator, air, electric or gasoline tool operator, hot dope carrier, tar kettle tender, gasoline vibrators, concrete gas buggies, concrete saw, signal person and top pe

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$41.53	\$55.45	\$69.36
Apprentice: 0-1,000 hours	\$40.32	\$50.75	\$61.19
Apprentice: 1,001-2,000 hours	\$41.71	\$52.84	\$63.97
Apprentice: 2,001-3,000 hours	\$43.11	\$54.94	\$66.77
Apprentice: 3,001-4,000 hours	\$45.89	\$59.11	\$72.33

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$55.45
10th hour	\$55.45
Beyond 10 hours	\$55.45

Saturday

First 8 hours	\$55.45
9th hour	\$55.45
10th hour	\$55.45
Beyond 10 hours	\$55.45

Sunday/Holiday	\$69.36
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 1 - RZ1	Laborer	06/20/2024

Classification Description: Laborer Road Class 1: Asphalt Shoveler or loader, asphalt plant misc., asphalt raker tender, burlap man, carpenters' tender, yard man, guard rail builder's tender, Earth Retention barrier and wall and M.S.E. Wall installers Tender, Highway and median barrier installers tender (including sound, retaining and crash barriers), fence erector's tender, dumper (wagon, Truck, etc.), joint filling labor, misc., unskilled labor, sprinkler labor, form setting labor, form stripper, pavement reinforcing, handling and placing (e.g., wire mesh, steel mats, dowel bars, etc.), mason's or bricklayer's tender on manholes, manhole builder, headwalls, etc., waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning, bridge painting, etc., (spray, roller and brush), sandblasting, pressure grouting, bridge pin and hanger removal, Material Recycling Laborer, Horizontal Paver Laborer (brick, concrete, clay, stone and asphalt), Ground Stabilization and Modification Laborer, grouting, waterblasting, Top Man, and railroad track and trestle laborer, sign installer and remote control operated equipment.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$47.82	\$62.33	\$76.83
Apprentice: 0-1,000 hours	\$41.33	\$52.21	\$63.09
Apprentice: 1,001-2,000 hours	\$42.78	\$54.39	\$65.99
Apprentice: 2,001-3,000	\$44.23	\$56.56	\$68.89
Apprentice: 3,001-4,000 hours	\$47.13	\$60.91	\$74.69

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$62.33
10th hour	\$62.33
Beyond 10 hours	\$62.33

Saturday

First 8 hours	\$62.33
9th hour	\$62.33
10th hour	\$62.33
Beyond 10 hours	\$62.33

Sunday/Holiday	\$76.83
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 2 - RZ1	Laborer	06/20/2024

Classification Description: Laborer Road Class 2: Mixer operator, (less than 5 sacks), air or electric tool operator (jack hammer, etc.), spreader, boxman (asphalt, stone, gravel, etc.), concrete paddler, power chain saw operator, paving batch truck dumper, tunnel mucker (highway work only), concrete saw operator (under 40 hp), dry pack machine, and roto-mill grounds person.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.07	\$62.64	\$77.21
Apprentice: 0-1,000 hours	\$41.43	\$52.36	\$63.29
Apprentice: 1,001-2,000 hours	\$42.88	\$54.54	\$66.19
Apprentice: 2,001-3,000 hours	\$44.34	\$56.73	\$69.11
Apprentice: 3,001-4,000 hours	\$47.25	\$61.09	\$74.93

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$62.64
10th hour	\$62.64
Beyond 10 hours	\$62.64

Saturday

First 8 hours	\$62.64
9th hour	\$62.64
10th hour	\$62.64
Beyond 10 hours	\$62.64

Sunday/Holiday	\$77.21
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 3 - RZ1	Laborer	06/20/2024

Classification Description: Laborer Road Class 3: Tunnel miner (highway work only), finishers tenders, guard rail builder, highway and median barrier installer, Earth Retention Barrier and wall and M.S.E. wall installer (including sound, retaining and crash barriers), fence erector, bottom man, powder man, wagon drill, and air track operator, curb and side rail setter's tender, diamond and core drills (per agreement between the Laborers and Operating Engineers International Union dated February 3, 1954), grade checker and certified welder.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.25	\$62.91	\$77.57
Apprentice: 0-1,000 hours	\$41.56	\$52.55	\$63.55
Apprentice: 1,001-2,000 hours	\$43.03	\$54.76	\$66.49
Apprentice: 2,001-3,000 hours	\$44.49	\$56.95	\$69.41
Apprentice: 3,001-4,000 hours	\$47.42	\$61.35	\$75.27

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$62.91
10th hour	\$62.91
Beyond 10 hours	\$62.91

Saturday

First 8 hours	\$62.91
9th hour	\$62.91
10th hour	\$62.91
Beyond 10 hours	\$62.91

Sunday/Holiday

\$77.57

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 4 - RZ1	Laborer	05/10/2024

Classification Description: Laborer Road Class 4: asphalt raker

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.33	\$62.53	\$77.23
Apprentice: 0-1,000 hours	\$41.62	\$52.15	\$63.17
Apprentice: 1,001-2,000 hours	\$43.09	\$54.35	\$66.11
Apprentice: 2,001-3,000 hours	\$44.56	\$56.55	\$69.05
Apprentice: 3,001-4,000 hours	\$47.50	\$60.97	\$74.93

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$63.03
10th hour	\$63.03
Beyond 10 hours	\$63.03

Saturday

First 8 hours	\$63.03
9th hour	\$63.03
10th hour	\$63.03
Beyond 10 hours	\$63.03

Sunday/Holiday	\$77.73
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 5 - RZ1	Laborer	05/10/2024

Classification Description: Laborer Road Class 5: pipe layers, oxy-gun

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.54	\$63.35	\$78.15
Apprentice: 0-1,000 hours	\$41.78	\$52.89	\$63.99
Apprentice: 1,001-2,000 hours	\$43.26	\$55.11	\$66.95
Apprentice: 2,001-3,000 hours	\$44.74	\$57.33	\$69.91
Apprentice: 3,001-4,000 hours	\$47.70	\$61.77	\$75.83

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$63.34
10th hour	\$63.34
Beyond 10 hours	\$63.34

Saturday

First 8 hours	\$63.34
9th hour	\$63.34
10th hour	\$63.34
Beyond 10 hours	\$63.34

Sunday/Holiday	\$78.15
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 6 - RZ1	Laborer	05/10/2024

Classification Description: Laborer Road Class 6: line form setter for curb or pavement, asphalt screed checker/screw man on asphalt paving machines

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.84	\$63.80	\$78.75
Apprentice: 0-1,000 hours	\$42.00	\$53.22	\$64.43
Apprentice: 1,001-2,000 hours	\$43.50	\$55.47	\$67.43
Apprentice: 2,001-3,000 hours	\$44.99	\$57.70	\$70.41
Apprentice: 3,001-4,000 hours	\$47.98	\$62.19	\$76.39

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$63.80
10th hour	\$63.80
Beyond 10 hours	\$63.80

Saturday

First 8 hours	\$63.80
9th hour	\$63.80
10th hour	\$63.80
Beyond 10 hours	\$63.80

Sunday/Holiday	\$78.75
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Class 7 - RZ1	Laborer	06/20/2024

Classification Description: Laborer Road Class 7: Concrete Specialist - The Classification of Concrete Specialist shall include the finishing and troweling, of cast in place or precast concrete by any and all methods. Laborers who have the necessary skills to be classified as a Concrete Specialist and perform the work shall be paid the following wage and fringe benefit scale.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.91	\$65.40	\$80.89
Apprentice: 0-1,000 hours	\$42.80	\$54.42	\$66.03
Apprentice: 1,001-2,000 hours	\$44.35	\$56.74	\$69.13
Apprentice: 2,001-3,000 hours	\$45.90	\$59.06	\$72.23
Apprentice: 3,001-4,000 hours	\$47.78	\$64.72	\$81.66

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$65.40
10th hour	\$65.40
Beyond 10 hours	\$65.40

Saturday

First 8 hours	\$65.40
9th hour	\$65.40
10th hour	\$65.40
Beyond 10 hours	\$65.40

Sunday/Holiday	\$80.89
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - D	Laborer	05/10/2024

Classification Description: Laborer -- building and heavy construction craft laborer, portable concrete mixer operator, air, electric or gasoline tool operator, hot dope carrier, tar kettle tender, gasoline vibrators, concrete gas buggies, concrete saw, signal person and top person

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.05	\$50.48	\$62.90
Apprentice: 0-1,000 Hours	\$31.84	\$41.16	\$50.48
Apprentice: 1,001-2,000 Hours	\$33.08	\$43.02	\$52.96
Apprentice: 2,001-3,000 Hours	\$34.32	\$44.88	\$55.44
Apprentice: 3,001-4,000 Hours	\$36.81	\$48.62	\$60.42

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$50.48
10th hour	\$50.48
Beyond 10 hours	\$50.48

Saturday

First 8 hours	\$50.48
9th hour	\$50.48
10th hour	\$50.48
Beyond 10 hours	\$50.48

Sunday/Holiday	\$62.90
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - J	Laborer	05/10/2024

Classification Description: Ground burner

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.18	\$50.67	\$63.16

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$50.67
10th hour	\$50.67
Beyond 10 hours	\$50.67

Saturday

First 8 hours	\$50.67
9th hour	\$50.67
10th hour	\$50.67
Beyond 10 hours	\$50.67

Sunday/Holiday	\$63.16
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Four 10-hour days allowed? - No

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - M-A	Laborer	05/10/2024

Classification Description: Construction Laborer, Carpenter Tender, Concrete Laborer, Concrete Chute, Bucket Handler.
Demolition

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.48	\$66.40	\$83.41
Apprentice: 0-1,000 work hours	\$39.67	\$51.90	\$64.14
Apprentice: 1,001-2,000 work hours	\$41.01	\$53.92	\$66.82
Apprentice: 2,001-3,000 work hours	\$42.35	\$55.92	\$69.50
Apprentice: 3,001-4,000 work hours	\$45.02	\$59.93	\$74.84

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$64.30
10th hour	\$64.30
Beyond 10 hours	\$64.30

Saturday

First 8 hours	\$64.30
9th hour	\$64.30
10th hour	\$64.30
Beyond 10 hours	\$64.30

Sunday/Holiday	\$79.11
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - M-B	Laborer	05/10/2024

Classification Description: Mortar Mixer (inc. concrete & mortar 1/2 cu yd.or smaller machine, or by hand in mortar box);Mason Tender & Cement Mason Tender; Plasterer Tender, Portable Mixer Operator, and Air, Electric & Gasoline Tool Operator (inc. concrete vibrator & acetylene torc

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$50.05	\$67.08	\$84.20

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$64.98
10th hour	\$64.98
Beyond 10 hours	\$64.98

Saturday

First 8 hours	\$64.98
9th hour	\$64.98
10th hour	\$64.98
Beyond 10 hours	\$64.98

Sunday/Holiday	\$79.90
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - M-C	Laborer	05/10/2024

Classification Description: Hazardous Work: Employees required to wear acid resistant clothing, heat resistant clothing or radiation protective clothing

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Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$50.39	\$67.59	\$84.88

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$65.49
10th hour	\$65.49
Beyond 10 hours	\$65.49

Saturday

First 8 hours	\$65.49
9th hour	\$65.49
10th hour	\$65.49
Beyond 10 hours	\$65.49

Sunday/Holiday	\$80.58
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - M-D	Laborer	05/10/2024

Classification Description: Cleaner/Sweeper Laborer; Furniture Laborer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$44.17	\$56.06	\$68.04

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$56.16
10th hour	\$56.16
Beyond 10 hours	\$56.16

Saturday

First 8 hours	\$56.16
9th hour	\$56.16
10th hour	\$56.16
Beyond 10 hours	\$56.16

Sunday/Holiday	\$68.14
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Saturday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
MORTAR MIXER	Laborer	08/02/2024

Classification Description: (including concrete and mortar 1/2 cu. yd. or smaller machine, or by hand in mortar box); MASON TENDER & CEMENT MASON TENDER, PLASTERER TENDER, PORTABLE MIXER OPERATOR, AND AIR ELECTRIC & GASOLINE TOOL OPERATOR (including concrete vibrator & acetylene torch); CAISSON WORKER; FURNACE BATTERY HEATER TENDERS; SIGNALMAN ON CONCRETE POURS ONLY

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.62	\$61.80	\$77.97

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$61.80
10th hour	\$61.80
Beyond 10 hours	\$61.80

Saturday

First 8 hours	\$61.80
9th hour	\$45.62
10th hour	\$45.62
Beyond 10 hours	\$45.62

Sunday/Holiday	\$77.97
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: 2nd Shift: \$1.00 per hour additional premium. 3rd Shift: \$1.50 per hour additional premium.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
HAZARDOUS WORK	Laborer - Hazardous	08/02/2024

Classification Description: Employees required to wear acid resistant clothing, heat resistant clothing or radiation protective clothing.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$52.89	\$69.24	\$85.58

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$69.23
10th hour	\$69.23
Beyond 10 hours	\$69.23

Saturday

First 8 hours	\$69.23
9th hour	\$52.89
10th hour	\$52.89
Beyond 10 hours	\$52.89

Sunday/Holiday	\$85.58
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Base Rate Comment: 2nd Shift: \$1.00 per hour additional premium. 3rd Shift: \$1.50 per hour additional premium.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Hazardous - Class A - Z4	Laborer - Hazardous	05/10/2024

Classification Description: Class A - performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or federal regulation

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.05	\$50.48	\$62.90
Apprentice: 0-1,000 work hours	\$31.84	\$41.16	\$50.48
Apprentice: 1,001-2,000 work hours	\$33.08	\$43.02	\$52.96
Apprentice: 2,001-3,000 work hours	\$34.32	\$44.88	\$55.44
Apprentice: 3,001-4,000 work hours	\$36.81	\$48.62	\$60.42

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$50.48
10th hour	\$50.48
Beyond 10 hours	\$50.48

Saturday

First 8 hours	\$50.48
9th hour	\$50.48
10th hour	\$50.48
Beyond 10 hours	\$50.48

Sunday/Holiday	\$62.90
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th or T-F; inclement weather makeup day Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Hazardous - Class A2 - Z4	Laborer - Hazardous	05/10/2024

Classification Description: Class A performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or federal regula

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$46.83	\$60.40	\$73.96
Apprentice: 0-1,000 work hours	\$40.05	\$50.22	\$60.40
Apprentice: 1,001-2,000 work hours	\$41.40	\$52.25	\$63.10
Apprentice: 2,001-3,000 work hours	\$42.76	\$54.29	\$65.82
Apprentice: 3,001-4,000 work hours	\$45.47	\$58.36	\$71.24

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$60.40
10th hour	\$60.40
Beyond 10 hours	\$60.40

Saturday

First 8 hours	\$60.40
9th hour	\$60.40
10th hour	\$60.40
Beyond 10 hours	\$60.40

Sunday/Holiday	\$73.96
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th or T-F; inclement weather makeup day Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Hazardous - Class B - Z4	Laborer - Hazardous	05/10/2024

Classification Description: Class B - performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.05	\$51.98	\$64.90
Apprentice: 0-1,000 work hours	\$32.59	\$42.28	\$51.98
Apprentice: 1,001-2,000 work hours	\$33.88	\$44.22	\$54.56
Apprentice: 2,001-3,000 work hours	\$35.17	\$46.16	\$57.14
Apprentice: 3,001-4,000 work hours	\$37.76	\$50.04	\$62.32

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$51.98
10th hour	\$51.98
Beyond 10 hours	\$51.98

Saturday

First 8 hours	\$51.98
9th hour	\$51.98
10th hour	\$51.98
Beyond 10 hours	\$51.98

Sunday/Holiday	\$64.90
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th or T-F; inclement weather makeup day Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Hazardous - Class B2 - Z4	Laborer - Hazardous	05/10/2024

Classification Description: Class B - performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$47.83	\$61.90	\$75.96
Apprentice: 0-1,000 work hours	\$40.80	\$51.35	\$61.90
Apprentice: 1,001-2,000 work hours	\$42.20	\$53.45	\$64.70
Apprentice: 2,001-3,000 work hours	\$43.61	\$55.56	\$67.52
Apprentice: 3,001-4,000 work hours	\$46.42	\$59.78	\$73.14

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$61.90
10th hour	\$61.90
Beyond 10 hours	\$61.90

Saturday

First 8 hours	\$61.90
9th hour	\$61.90
10th hour	\$61.90
Beyond 10 hours	\$61.90

Sunday/Holiday	\$75.96
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th or T-F; inclement weather makeup day Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class A	Laborer - Landscape	08/02/2024

Classification Description: Irrigation Foremen and Construction Foremen. Skilled Landscape Operator includes air, gas and diesel equipment operators, lawn sprinkler installers, skid steer/track loaders, mini excavators, off-road dump vehicle, articulated haulers, hydroseeder, backhoe loaders, wheel loaders, excavators, ride and walk-behind trenchers and telescope handlers.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$37.22	\$50.00	\$62.78

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$37.22
10th hour	\$37.22
Beyond 10 hours	\$37.22

Saturday

First 8 hours	\$37.22
9th hour	\$37.22
10th hour	\$37.22
Beyond 10 hours	\$37.22

Sunday/Holiday	\$37.22
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class B	Laborer - Landscape	08/02/2024

Classification Description: Skilled Landscape Laborer includes small power tool operator, lawn sprinkler installers' tender, irrigation installers' tender and material mover.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$35.00	\$48.17	\$61.34

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$35.00
10th hour	\$35.00
Beyond 10 hours	\$35.00

Saturday

First 8 hours	\$35.00
9th hour	\$35.00
10th hour	\$35.00
Beyond 10 hours	\$35.00

Sunday/Holiday	\$35.00
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class D	Laborer - Landscape	08/02/2024

Classification Description: Inexperienced Landscape Laborer is defined as an individual who has not worked ninety (90) calendar days under the terms and conditions of this or a similar collective bargaining agreement. An Inexperienced Laborer may be employed by the Contractor Foreman. The ratio may be utilized by the Contractor on a company-wide basis or a project basis. The ratio may be modified by mutual agreement of the Local Union having jurisdiction and the Contractor. The Local Union having jurisdiction on the project shall have first opportunity to refer new employees. See Article 3, Section 3.6.

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$21.74	\$32.61	\$43.48	Over 8-hour day/40-hour week
				9th hour \$21.74
				10th hour \$21.74
				Beyond 10 hours \$21.74
				Saturday
				First 8 hours \$21.74
				9th hour \$21.74
				10th hour \$21.74
				Beyond 10 hours \$21.74
				Sunday/Holiday \$21.74

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Landscape - Class B1 - Z1	Laborer - Landscape	05/10/2024

Classification Description: Class B1: Landscape Operator includes air, gas, and diesel equipment operator, lawn sprinkler installer, skidsteer, mini excavators, backhoe loaders, ride and walk behind trenchers, off road dump vehicle, articulated haulers, hydroseeder, wheel loaders

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$32.40	\$42.43	\$52.95

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$42.93
10th hour	\$42.93
Beyond 10 hours	\$42.93

Saturday

First 8 hours	\$42.93
9th hour	\$42.93
10th hour	\$42.93
Beyond 10 hours	\$42.93

Sunday/Holiday	\$53.45
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Landscape - Class B1 - Z1	Laborer - Landscape	05/10/2024

Classification Description: Class B1: Landscape Operator includes air, gas, and diesel equipment operator, lawn sprinkler installer, skidsteer, mini excavators, backhoe loaders, ride and walk behind trenchers, off road dump vehicle, articulated haulers, hydroseeder, wheel loaders

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$34.62	\$46.26	\$57.89

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$11.35
10th hour	\$46.26
Beyond 10 hours	\$46.26

Saturday

First 8 hours	\$46.26
9th hour	\$46.26
10th hour	\$46.26
Beyond 10 hours	\$46.26

Sunday/Holiday	\$57.89
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Landscape - Class B2 - Z1	Laborer - Landscape	05/10/2024

Classification Description: Class B2: Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, irrigation installers' tender, material mover

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$30.40	\$39.93	\$49.45

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$39.93
10th hour	\$39.93
Beyond 10 hours	\$39.93

Saturday

First 8 hours	\$39.93
9th hour	\$39.93
10th hour	\$39.93
Beyond 10 hours	\$39.93

Sunday/Holiday	\$49.45
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Landscape - Class C - Z2	Laborer - Landscape	05/10/2024

Classification Description: Class C: landscape laborer with 90 or more calendar days worked

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$24.66	\$33.27	\$41.87

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$31.98
10th hour	\$31.98
Beyond 10 hours	\$31.98

Saturday

First 8 hours	\$31.98
9th hour	\$31.98
10th hour	\$31.98
Beyond 10 hours	\$31.98

Sunday/Holiday	\$39.30
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer - Landscape - Class D - Z2	Laborer - Landscape	05/10/2024

Classification Description: Class D: Inexperienced landscape laborer - individual who has worked less than 90 calendar days

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$15.54	\$23.31	\$31.08

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$22.03
10th hour	\$22.03
Beyond 10 hours	\$22.03

Saturday

First 8 hours	\$22.03
9th hour	\$22.03
10th hour	\$22.03
Beyond 10 hours	\$22.03

Sunday/Holiday	\$28.51
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Laborer Underground - Caisson - Class I - Z2	Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.97	\$50.26	\$61.54
Apprentice: 0-1,000 work hours	\$32.85	\$42.64	\$52.43
Apprentice: 1,001-2,000 work hours	\$33.97	\$44.32	\$54.67
Apprentice: 2,001-3,000 work hours	\$35.08	\$45.99	\$56.89
Apprentice: 3,001-4,000 work hours	\$37.31	\$49.33	\$61.35

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$50.26
10th hour	\$50.26
Beyond 10 hours	\$50.26

Saturday

First 8 hours	\$50.26
9th hour	\$50.26
10th hour	\$50.26
Beyond 10 hours	\$50.26

Sunday/Holiday	\$61.54
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Laborer Underground - Caisson - Class II - Z2	Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.06	\$50.39	\$61.72
Apprentice: 0-1,000 work hours	\$32.92	\$42.75	\$52.57
Apprentice: 1,001-2,000 work hours	\$34.04	\$44.43	\$54.81
Apprentice: 2,001-3,000 work hours	\$35.16	\$46.11	\$57.05
Apprentice: 3,001-4,000 work hours	\$37.39	\$49.45	\$61.51

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$50.39
10th hour	\$50.39
Beyond 10 hours	\$50.39

Saturday

First 8 hours	\$50.39
9th hour	\$50.39
10th hour	\$50.39
Beyond 10 hours	\$50.39

Sunday/Holiday	\$61.72
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Laborer Underground - Caisson - Class III -Z2	Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender, car pusher, carrier man, concrete man, concrete form man, concrete repair man, cement invert laborer, cement finisher, con

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.16	\$50.54	\$61.92
Apprentice: 0-1,000 work hours	\$32.99	\$42.85	\$52.71
Apprentice: 1,001-2,000 work hours	\$34.12	\$44.55	\$54.97
Apprentice: 2,001-3,000 work hours	\$35.24	\$46.23	\$57.21
Apprentice: 3,001-4,000 work hours	\$37.49	\$49.60	\$61.71

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$50.54
10th hour	\$50.54
Beyond 10 hours	\$50.54

Saturday

First 8 hours	\$50.54
9th hour	\$50.54
10th hour	\$50.54
Beyond 10 hours	\$50.54

Sunday/Holiday

\$61.92

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Caisson - Class IV -Z2	Laborer Underground - Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point man.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.58	\$51.17	\$62.76
Apprentice: 0-1,000 work hours	\$33.11	\$43.03	\$52.95
Apprentice: 1,001-2,000 work hours	\$34.25	\$44.74	\$55.23
Apprentice: 2,001-3,000 work hours	\$35.38	\$46.43	\$57.49
Apprentice: 3,001-4,000 work hours	\$37.64	\$49.83	\$62.01

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17

Saturday

First 8 hours	\$51.17
9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17

Sunday/Holiday	\$62.76
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Caisson - Class V -Z2	Laborer Underground - Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class V - Tunnel, shaft and caisson miner, drill runner, keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.58	\$51.17	\$62.76
Apprentice: 0-1,000 work hours	\$33.31	\$43.33	\$53.35
Apprentice: 1,001-2,000 work hours	\$34.45	\$45.04	\$55.63
Apprentice: 2,001-3,000 work hours	\$35.60	\$46.77	\$57.93
Apprentice: 3,001-4,000 work hours	\$37.89	\$50.20	\$62.51

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17

Saturday

First 8 hours	\$51.17
9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17

Sunday/Holiday	\$62.76
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Laborer Underground - Caisson - Class VI - Z2	Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class VI - Dynamite man and powder man.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.34	\$52.38	\$65.41
Apprentice: 0-1,000 work hours	\$33.54	\$43.67	\$53.81
Apprentice: 1,001-2,000 work hours	\$34.70	\$45.41	\$56.13
Apprentice: 2,001-3,000 work hours	\$35.86	\$47.15	\$58.45
Apprentice: 3,001-4,000 work hours	\$38.18	\$50.63	\$63.09

Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$50.94
10th hour	\$50.94
Beyond 10 hours	\$50.94
Saturday	
First 8 hours	\$50.94
9th hour	\$50.94
10th hour	\$50.94
Beyond 10 hours	\$50.94
Sunday/Holiday	\$62.53

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer Underground - Tunnel, Shaft & Laborer Underground - Caisson - Class VII - Z2	Tunnel, Shaft & Caisson	05/10/2024

Classification Description: Class VII - Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes and flagstones.

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$32.16	\$40.04	\$47.92	Over 8-hour day/40-hour week
Apprentice: 0-1,000 work hours	\$27.75	\$34.99	\$42.23	9th hour \$40.04
Apprentice: 1,001-2,000 work hours	\$28.52	\$36.15	\$43.77	10th hour \$40.04
Apprentice: 2,001-3,000 work hours	\$29.29	\$37.30	\$45.31	Beyond 10 hours \$40.04
Apprentice: 3,001-4,000 work hours	\$30.84	\$39.63	\$48.41	Saturday
				First 8 hours \$40.04
				9th hour \$40.04
				10th hour \$40.04
				Beyond 10 hours \$40.04
				Sunday/Holiday \$47.92

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class I - Z2	Laborer -Underground Open Cut, Class I	05/10/2024

Classification Description: Construction Laborer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.17	\$50.57	\$62.97
Apprentice: 0-1,000 work hours	\$32.74	\$42.42	\$52.11
Apprentice: 1,001-2,000 work hours	\$33.83	\$44.06	\$54.29
Apprentice: 2,001-3,000 work hours	\$34.91	\$45.68	\$56.45
Apprentice: 3,001-4,000 work hours	\$37.09	\$48.95	\$60.81

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$49.02
10th hour	\$49.02
Beyond 10 hours	\$49.02

Saturday

First 8 hours	\$49.02
9th hour	\$49.02
10th hour	\$49.02
Beyond 10 hours	\$49.02

Sunday/Holiday	\$59.87
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class II - Z2	Laborer -Underground Open Cut, Class II	05/10/2024

Classification Description: Mortar and material mixer, concrete form man, signal man, well point man, manhole, headwall and catch basin builder, guard rail builders, headwall, seawall, breakwall, dock builder and fence erector.

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$38.28	\$50.74	\$63.19	Over 8-hour day/40-hour week
Apprentice: 0-1,000 work hours	\$32.83	\$42.56	\$52.29	9th hour \$49.19
Apprentice: 1,001-2,000 work hours	\$33.92	\$44.20	\$54.47	10th hour \$49.19
Apprentice: 2,001-3,000 work hours	\$35.01	\$45.83	\$56.65	Beyond 10 hours \$49.19
Apprentice: 3,001-4,000 work hours	\$37.19	\$49.10	\$61.01	Saturday
				First 8 hours \$49.19
				9th hour \$49.19
				10th hour \$49.19
				Beyond 10 hours \$49.19
				Sunday/Holiday \$60.09

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class III - Z2	Laborer -Underground Open Cut, Class III	05/10/2024

Classification Description: Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodder, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars, etc.), cement finisher, welder, pipe jacking and boring man, wagon

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.40	\$50.92	\$63.43
Apprentice: 0-1,000 work hours	\$32.92	\$42.70	\$52.47
Apprentice: 1,001-2,000 work hours	\$34.01	\$44.33	\$54.65
Apprentice: 2,001-3,000 work hours	\$35.11	\$45.98	\$56.85
Apprentice: 3,001-4,000 work hours	\$37.30	\$49.26	\$61.23

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$49.37
10th hour	\$49.37
Beyond 10 hours	\$49.37

Saturday

First 8 hours	\$49.37
9th hour	\$49.37
10th hour	\$49.37
Beyond 10 hours	\$49.37

Sunday/Holiday

\$60.33

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class IV - Z2	Laborer -Underground Open Cut, Class IV	05/10/2024

Classification Description: Trench or excavating grade man.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.47	\$51.02	\$63.57
Apprentice: 0-1,000 work hours	\$32.97	\$42.77	\$52.57
Apprentice: 1,001-2,000 work hours	\$34.07	\$44.42	\$54.77
Apprentice: 2,001-3,000 work hours	\$35.17	\$46.07	\$56.97
Apprentice: 3,001-4,000 work hours	\$37.37	\$49.37	\$61.37

Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$49.47
10th hour	\$49.47
Beyond 10 hours	\$49.47
Saturday	
First 8 hours	\$49.47
9th hour	\$49.47
10th hour	\$49.47
Beyond 10 hours	\$49.47
Sunday/Holiday	
	\$60.47

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class V - Z2	Laborer -Underground Open Cut, Class V	05/10/2024

Classification Description: Pipe Layer (including crock, metal pipe, multiplate or other conduits)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$38.62	\$51.25	\$63.87	Over 8-hour day/40-hour week
Apprentice: 0-1,000 work hours	\$33.08	\$42.94	\$52.79	9th hour \$49.70
Apprentice: 1,001-2,000 work hours	\$34.19	\$44.60	\$55.01	10th hour \$49.70
Apprentice: 2,001-3,000 work hours	\$35.30	\$46.26	\$57.23	Beyond 10 hours \$49.70
Apprentice: 3,001-4,000 work hours	\$37.51	\$49.58	\$61.65	Saturday
				First 8 hours \$49.70
				9th hour \$49.70
				10th hour \$49.70
				Beyond 10 hours \$49.70
				Sunday/Holiday \$60.77

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class VI - Z2	Laborer -Underground Open Cut, Class VI	05/10/2024

Classification Description: Grouting man, top man assistant, audio visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenan

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$35.92	\$47.20	\$58.47
Apprentice: 0-1,000 work hours	\$31.06	\$39.90	\$48.75
Apprentice: 1,001-2,000 work hours	\$32.03	\$41.36	\$50.69
Apprentice: 2,001-3,000 work hours	\$33.00	\$42.82	\$52.63
Apprentice: 3,001-4,000 work hours	\$34.95	\$45.74	\$56.53

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$45.65
10th hour	\$45.65
Beyond 10 hours	\$45.65

Saturday

First 8 hours	\$45.65
9th hour	\$45.65
10th hour	\$45.65
Beyond 10 hours	\$45.65

Sunday/Holiday

\$55.37

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Laborer -Underground Open Cut - Class VII - Z2	Laborer -Underground Open Cut, Class VII	05/10/2024

Classification Description: Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes, flagstones etc.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$32.56	\$42.16	\$51.75
Apprentice: 0-1,000 work hours	\$28.54	\$36.12	\$43.71
Apprentice: 1,001-2,000 work hours	\$29.34	\$37.32	\$45.31
Apprentice: 2,001-3,000 work hours	\$30.15	\$38.54	\$46.93
Apprentice: 3,001-4,000 work hours	\$31.76	\$40.96	\$50.15

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$40.61
10th hour	\$40.61
Beyond 10 hours	\$40.61

Saturday

First 8 hours	\$40.61
9th hour	\$40.61
10th hour	\$40.61
Beyond 10 hours	\$40.61

Sunday/Holiday	\$48.65
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class I	Operating Engineer	05/10/2024

Classification Description: Class I - diver/wet tender, engineer, blaster, leverman

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$82.82	\$107.82	\$132.82

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$32.82
10th hour	\$107.82
Beyond 10 hours	\$107.82

Saturday

First 8 hours	\$107.82
9th hour	\$107.82
10th hour	\$107.82
Beyond 10 hours	\$107.82

Sunday/Holiday	\$132.82
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class II (A)	Operating Engineer	05/10/2024

Classification Description: Class II (A) - Crane/backhoe operator, material handler, all self-propelled drill rigs, mechanic/welder, hydraulic dredge, diver tender

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$81.32	\$105.57	\$129.82

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$32.82
10th hour	\$105.57
Beyond 10 hours	\$105.57

Saturday

First 8 hours	\$105.57
9th hour	\$105.57
10th hour	\$105.57
Beyond 10 hours	\$105.57

Sunday/Holiday	\$129.82
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class II (B)	Operating Engineer	05/10/2024

Classification Description: Class II (B) - friction, lattice boom, tug or tug boat operator

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$84.32	\$110.07	\$135.82

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$110.07
10th hour	\$110.07
Beyond 10 hours	\$110.07

Saturday

First 8 hours	\$110.07
9th hour	\$110.07
10th hour	\$110.07
Beyond 10 hours	\$110.07

Sunday/Holiday	\$135.82
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class III	Operating Engineer	05/10/2024

Classification Description: Class III - Deck equip. operator, maintenance of crane or excavator, tug/launch operator, loader/dozer on barge/deck machinery, truck-able tug, lead surveyor, ROV operator, AB deckhand, welder

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.82	\$98.82	\$120.82

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.82
10th hour	\$98.82
Beyond 10 hours	\$98.82

Saturday

First 8 hours	\$98.82
9th hour	\$98.82
10th hour	\$98.82
Beyond 10 hours	\$98.82

Sunday/Holiday	\$120.82
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Class IV	Operating Engineer	05/10/2024

Classification Description: Class IV - Deck equipment operator, machineryman/fireman, off road trucks, deck hand, tug engineer, assistant tug operator, blaster helper, deck hand, jet machine, subsea plow, trencher, tug engineer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$72.32	\$92.07	\$111.82

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$32.82
10th hour	\$92.07
Beyond 10 hours	\$92.07

Saturday

First 8 hours	\$92.07
9th hour	\$92.07
10th hour	\$92.07
Beyond 10 hours	\$92.07

Sunday/Holiday	\$111.82
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Extended Boom Forklift Operator - Over 5,000	Operating Engineer	05/10/2024

Classification Description: Extended boom forklift/forktruck over 5,000lb capacity, 1 drum hoist

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage	\$41.43	\$54.43	\$67.42	9th hour \$54.43
				10th hour \$54.43
				Beyond 10 hours \$67.42
				Saturday
				First 8 hours \$54.43
				9th hour \$54.43
				10th hour \$54.43
				Beyond 10 hours \$67.42
				Sunday/Holiday \$67.42

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Extended Boom Forklift Operator - Over 5,000	Operating Engineer	05/10/2024

Classification Description: Extended boom forklift/forktruck over 5,000lb capacity, 1 drum hoist

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage	\$58.82	\$73.32	\$87.81	9th hour \$73.32
				10th hour \$73.32
				Beyond 10 hours \$87.81
				Saturday
				First 8 hours \$73.32
				9th hour \$73.32
				10th hour \$73.32
				Beyond 10 hours \$87.81
				Sunday/Holiday \$87.81

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Extended Boom Forklift Operator - Over 5,000	Operating Engineer	05/10/2024

Classification Description: Extended boom forklift/forktruck over 5,000lb capacity, 1 drum hoist

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage	\$64.70	\$81.75	\$98.80	9th hour \$81.75
				10th hour \$81.75
				Beyond 10 hours \$98.80
				Saturday
				First 8 hours \$81.75
				9th hour \$81.75
				10th hour \$81.75
				Beyond 10 hours \$98.80
				Sunday/Holiday \$98.80

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Extended Boom Forklift Operator - Over 5,000	Operating Engineer	05/10/2024

Classification Description: Extended boom forklift/forktruck over 5,000lb capacity, 1 drum hoist

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$69.61	\$88.88	\$108.15	Over 8-hour day/40-hour week
				9th hour \$88.88
				10th hour \$88.88
				Beyond 10 hours \$108.15
				Saturday
				First 8 hours \$88.88
				9th hour \$88.88
				10th hour \$88.88
				Beyond 10 hours \$108.15
				Sunday/Holiday \$108.15

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Extended Boom Forklift Operator - Over 5,000	Operating Engineer	05/10/2024

Classification Description: Extended boom forklift/forktruck over 5,000lb capacity, 1 drum hoist

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$63.29	\$79.73	\$96.16	Over 8-hour day/40-hour week
				9th hour \$79.73
				10th hour \$79.73
				Beyond 10 hours \$96.16
				Saturday
				First 8 hours \$79.73
				9th hour \$79.73
				10th hour \$79.73
				Beyond 10 hours \$96.16
				Sunday/Holiday \$96.16

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Fireman or Oiler	Operating Engineer	08/01/2024

Classification Description: Fireman or Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$59.08	\$75.85	\$92.62

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$59.08
10th hour	\$59.08
Beyond 10 hours	\$88.24

Saturday

First 8 hours	\$59.08
9th hour	\$88.24
10th hour	\$88.24
Beyond 10 hours	\$88.24

Sunday/Holiday	\$88.24
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman - Class I	Operating Engineer	05/17/2024

Classification Description: Journeyman - Class I

Asphalt Transfer Machine (Shuttle Buggy)

Concrete/Asphalt Pavers

Excavators Installing Utilities over 20 feet in depth

GPS or Electronic Grade Equipment (employee must be able to set up and use it on machine themselves, and employee can install it and calibrate it on their own)

Hydraulic/Lattice Lifting Cranes over 25 tons

Mechanic

****On bridge construction projects when a Class I Crane Operator is erecting structural components as part of a composite crew with Structural Ironworkers, the Base Rate and Vacation and Holiday pay shall be at the Crane Operator rate as set forth in the current agreement between the Union and the Great Lakes Fabricators and Erectors Association.**

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$69.17	\$88.16	\$107.14
Apprentice: Apprentice Engineer 0-6 months	\$56.03	\$71.32	\$86.60
Apprentice: Apprentice Engineer 13-18	\$60.40	\$77.87	\$95.34
Apprentice: Apprentice Engineer 19-24 months	\$62.21	\$80.59	\$98.96
Apprentice: Apprentice Engineer 25-30 months	\$64.76	\$84.42	\$104.06
Apprentice: Apprentice Engineer 31-36 months	\$67.08	\$87.90	\$108.70
Apprentice: Apprentice Engineer 7-12 months	\$58.21	\$74.58	\$90.96

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

In the event work is unable to be performed on account of weather, Monday through Thursday, the Friday work may be scheduled for ten (10) hours, at straight time, as a make-up day.

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$88.16
10th hour	\$88.16
Beyond 10 hours	\$88.16

Saturday

First 8 hours	\$88.16
9th hour	\$88.16
10th hour	\$88.16
Beyond 10 hours	\$88.16

Sunday/Holiday	\$107.14
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman - Class II	Operating Engineer	05/17/2024

Classification Description: Journeyman - Class II

Air Compressors in Manifold with throttle valve + 750 cfm
Asphalt Bituminous Compactor / Roller
Asphalt Planner self-propelled
Asphalt Plant on project including operating from on site or operating remotely
Asphalt Screed or Screw (per Employer Past Practice)
Auto Grade or similar type machine
Backhoe on Farm Type Tractor 45 H.P. & over
Ballast Jack Tamper
Ballast Regulator (R.R.)
Batch Plant (concrete-central mix)
Bituminous Paver (self-propelled)
Blade Grader
Bull Dozer
Caisson Drilling Machine
Cherry Picker – 15 ton or over
Chip Spreader
Concrete Batch or Drum Mix Plant on project including operating from on site or operating remotely
Concrete Belt Placer (Formless)
Concrete Cure / Finish Machine (burlap, tinning or grooving)
Concrete Mixer 21 cu. Ft. Or over
Concrete Pump (Truck Mount)
Concrete Pump (3 inch and over)
Concrete / Asphalt Saw Power Driven (3 yrs experience or more)
Conveyor Loader (Euclid type)
Core Drilling Machine
Curb-Barrier Wall Machine CMI type
Directional Drill / Boring Machine
Dredge Engineer
Dredge
Drilling Machine on which the drill is an integral part
Earth Mover – rubber tired – (paddle wheel, Cat 619, 631, TS-24 or similar type)
Earth Mover rubber tired-tandem

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$68.02	\$86.51	\$104.99

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$86.50
10th hour	\$86.50
Beyond 10 hours	\$86.50

Saturday

First 8 hours	\$86.50
9th hour	\$86.50
10th hour	\$86.50
Beyond 10 hours	\$86.50

Sunday/Holiday	\$104.99
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman - Class III	Operating Engineer	05/17/2024

Classification Description: Journeyman - Class III

Air Compressor with Throttle Valve or Clever Brooks type comb.
Backhoe less than 1 cyd. Including Farm Type
Bituminous Plant Engineer
Chemical / Grout Machine 21 cft. Or larger
Cherry Picker under 15 ton
Chip Spreader (self-propelled)
Crusher
Concrete Barrier Moving Machine (per Employer Past Practice)
Concrete Pump
Concrete Spreader--Power Driven
End Loader under 1-1/2 cu yd.
Grease Truck
Gunit Machine
Lowboy (per Employer Past Practice)
Mesh or Steel Placer (motorized)
Multiple Tamping Machine (R.R.)
Refrigerating Machine--Freezing operation
Roller-Waterbound Macadam, Bituminous Macadam, Brick
Ross Carrier
Self-propelled convey transfer devise.
Side Boom Tractor (smaller than D-4 type or equivalent)
Sweeper (Wayne type and similar equipment)
Macadam, Brick Surface
Trench Machine 24" and under
Tube Float (motorized)

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$61.29	\$76.85	\$92.41

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$30.17
10th hour	\$76.85
Beyond 10 hours	\$76.85

Saturday

First 8 hours	\$76.85
9th hour	\$76.85
10th hour	\$76.85
Beyond 10 hours	\$76.85

Sunday/Holiday	\$92.41
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman - Class IV	Operating Engineer	05/17/2024

Classification Description: Journeyman - Class IV

Air Compressor
All mulching equipment
All Walk Behind or Remote Control Powered Equipment (autonomous equipment)
Assistant to Engineer Automatic Dry Batch Plant Belt Spreader (motorized including transfer device by remote, wireless or cable)
Bituminous Distributor
Bituminous Patching Machine
Broom & Belt Machine
Chair Cart (self-propelled)
Concrete Pumps (under 3")
Concrete Breaker
Curb Machine
Curing Equipment (self-propelled)
Deck Hand
Digger Post Hole (power-driven)
Dump Truck
End Dumps (per Employer Past Practice)
End Loader (under $\frac{3}{4}$ yard capacity)
Farm Tractor-incl. farm tractor with all attachments except backhoe and incl. highlift end loaders of 1 cu. Yard capacity or less
Fireman (on boiler)
Fork Lift – under 10 ton
Form Grader (if motorized)
Georgia Buggy – Power wheel barrel $\frac{3}{4}$ yard with a seat
Generator (15 kw or greater)
Greaser Helper
Guard Post Driver (power driven)

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$60.73	\$76.05	\$91.36

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$76.05
10th hour	\$76.05
Beyond 10 hours	\$76.05

Saturday

First 8 hours	\$76.05
9th hour	\$76.05
10th hour	\$76.05
Beyond 10 hours	\$76.05

Sunday/Holiday	\$91.36
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman - Class V	Operating Engineer	05/17/2024

Classification Description: Journeyman - Class V

Concrete/Asphalt Saw - Power Driven (Less than 3 yrs. experience)

Density/Soil Engineer

Directional Boring Utility Man

Discharge Pumps 4" or less (1-4 units)

Dumper (Wagon, Truck, Etc.)-½ yard or less

Fence Erector/Power Driven

Light Plants (1 to 5 units)

Paving Batch Truck Dumper

Roto Mill Utility Grade Control

Sign Installer/Sign Installer with Remote Control Operated Equipment

Top Man, And Railroad Track and Trestle Engineer

Utility Engineer

Water Blasting Utility Engineer

1 to 4 pcs. of minor equip.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$42.35	\$55.33	\$68.31

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$55.33
10th hour	\$55.33
Beyond 10 hours	\$55.33

Saturday

First 8 hours	\$55.33
9th hour	\$55.33
10th hour	\$55.33
Beyond 10 hours	\$55.33

Sunday/Holiday

\$68.31

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 A140	Operating Engineer	05/10/2024

Classification Description: Crane with boom & jib or leads 140' or longer

Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.59	\$100.24	\$122.89

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$100.24
10th hour	\$100.24
Beyond 10 hours	\$100.24

Saturday

First 8 hours	\$100.24
9th hour	\$100.24
10th hour	\$100.24
Beyond 10 hours	\$100.24

Sunday/Holiday	\$122.89
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 hours Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 A220	Operating Engineer	05/10/2024

Classification Description: Crane with boom & jib or leads 220' or longer

Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.86	\$100.63	\$123.40

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$100.63
10th hour	\$100.63
Beyond 10 hours	\$100.63

Saturday

First 8 hours	\$100.63
9th hour	\$100.63
10th hour	\$100.63
Beyond 10 hours	\$100.63

Sunday/Holiday	\$123.40
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 hours Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 B120	Operating Engineer	06/20/2024

Classification Description: Crane Operator w/120' of Boom or Longer w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.41	\$99.99	\$122.56

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$99.98
10th hour	\$99.98
Beyond 10 hours	\$99.98

Saturday

First 8 hours	\$99.98
9th hour	\$99.98
10th hour	\$99.98
Beyond 10 hours	\$99.98

Sunday/Holiday	\$122.56
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 GM	Operating Engineer	06/20/2024

Classification Description: Ground Man/Light Plants/Welder/Pumps Under 6"

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$43.83	\$57.87	\$71.91

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$57.87
10th hour	\$57.87
Beyond 10 hours	\$57.87

Saturday

First 8 hours	\$57.87
9th hour	\$57.87
10th hour	\$57.87
Beyond 10 hours	\$57.87

Sunday/Holiday	\$71.91
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - Below 5,000lb Capacity	Operating Engineer	06/20/2024

Classification Description: Ind. forklift/forktruck under 5,000lb capacity
power jacks/power packs, composite crew only

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.10	\$85.19	\$103.28

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$85.19
10th hour	\$85.19
Beyond 10 hours	\$85.19

Saturday

First 8 hours	\$85.19
9th hour	\$85.19
10th hour	\$85.19
Beyond 10 hours	\$85.19

Sunday/Holiday	\$103.28
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - Crane Operator w/Oiler	Operating Engineer	06/20/2024

Classification Description: Crane Operator w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.05	\$99.47	\$121.89

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$99.47
10th hour	\$99.47
Beyond 10 hours	\$99.47

Saturday

First 8 hours	\$99.47
9th hour	\$99.47
10th hour	\$99.47
Beyond 10 hours	\$99.47

Sunday/Holiday	\$121.89
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - Crane, TDH, Excavator	Operating Engineer	06/20/2024

Classification Description: Crane Operator, Job Mechanic, Three Drum Hoist and Excavator

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.05	\$98.04	\$120.02
Apprentice: Apprentice Engineer 0-6 months	\$60.84	\$78.54	\$96.24
Apprentice: Apprentice Engineer 13-18 months	\$65.90	\$86.13	\$106.36
Apprentice: Apprentice Engineer 19-24 months	\$68.42	\$89.92	\$111.40
Apprentice: Apprentice Engineer 25-30 months	\$70.95	\$93.71	\$116.46
Apprentice: Apprentice Engineer 31-36 months	\$73.48	\$97.50	\$121.52
Apprentice: Apprentice Engineer 7-12 months	\$63.40	\$82.38	\$101.36

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$98.03
10th hour	\$98.03
Beyond 10 hours	\$98.03
Saturday	
First 8 hours	\$98.03
9th hour	\$98.03
10th hour	\$98.03
Beyond 10 hours	\$98.03
Sunday/Holiday	\$120.02

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - CW	Operating Engineer	05/10/2024

Classification Description: Compressor or welding machine
Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.86	\$69.72	\$84.58

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$67.78
10th hour	\$67.78
Beyond 10 hours	\$67.78

Saturday

First 8 hours	\$67.78
9th hour	\$80.70
10th hour	\$80.70
Beyond 10 hours	\$80.70

Sunday/Holiday	\$80.70
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - F	Operating Engineer	05/10/2024

Classification Description: Forklift, lull, extend-a-boom forklift

Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$63.36	\$79.81	\$96.25

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$79.81
10th hour	\$79.81
Beyond 10 hours	\$79.81

Saturday

First 8 hours	\$79.81
9th hour	\$96.25
10th hour	\$96.25
Beyond 10 hours	\$96.25

Sunday/Holiday	\$96.25
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - FO	Operating Engineer	05/10/2024

Classification Description: Fireman or oiler

Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.83	\$68.18	\$82.52

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$66.31
10th hour	\$66.31
Beyond 10 hours	\$66.31

Saturday

First 8 hours	\$66.31
9th hour	\$78.78
10th hour	\$78.78
Beyond 10 hours	\$78.78

Sunday/Holiday	\$78.78
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - FSM	Operating Engineer	05/10/2024

Classification Description: Forklift or Straight Mast

Four 10 hour days may be scheduled M-Th or T-F. Work not performed due to weather on M-Th may be scheduled on Friday

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$57.50	\$71.40	\$85.29

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$71.40
10th hour	\$71.40
Beyond 10 hours	\$71.40

Saturday

First 8 hours	\$71.40
9th hour	\$85.29
10th hour	\$85.29
Beyond 10 hours	\$85.29

Sunday/Holiday	\$85.29
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - I	Operating Engineer	05/10/2024

Classification Description: Lull or Extend-a-Boom Forklift

Four 10 hour days may be scheduled M-Th or T-F. Work not performed due to weather on M-Th may be scheduled on Friday

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$59.73	\$77.09	\$94.45

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$74.83
10th hour	\$74.83
Beyond 10 hours	\$74.83

Saturday

First 8 hours	\$74.83
9th hour	\$89.92
10th hour	\$89.92
Beyond 10 hours	\$89.92

Sunday/Holiday	\$89.92
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - OE 324 A120	Operating Engineer	01/09/2025

Classification Description: Crane with boom & jib or leads 120' or longer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.41	\$98.55	\$120.69

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.55
10th hour	\$98.55
Beyond 10 hours	\$98.55

Saturday

First 8 hours	\$98.55
9th hour	\$98.55
10th hour	\$98.55
Beyond 10 hours	\$98.55

Sunday/Holiday	\$120.69
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time over 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - os120	Operating Engineer	05/10/2024

Classification Description: Crane with main boom & jib 120' or longer

Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Worked not performed due to weather, Monday-Thursday may be scheuled Friday

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$63.27	\$82.40	\$101.53

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$79.91
10th hour	\$79.91
Beyond 10 hours	\$79.91

Saturday

First 8 hours	\$79.91
9th hour	\$96.54
10th hour	\$96.54
Beyond 10 hours	\$96.54

Sunday/Holiday

\$96.54

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - RC	Operating Engineer	05/10/2024

Classification Description: Regular crane, job mechanic, concrete pump with boom

Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$64.85	\$84.71	\$104.56

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$82.12
10th hour	\$82.12
Beyond 10 hours	\$82.12

Saturday

First 8 hours	\$82.12
9th hour	\$99.38
10th hour	\$99.38
Beyond 10 hours	\$99.38

Sunday/Holiday	\$99.38
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - Skidsteer Operator	Operating Engineer	06/20/2024

Classification Description: Skidsteer forklift when working with fence and Door companies

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$65.69	\$83.17	\$100.65

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$83.17
10th hour	\$83.17
Beyond 10 hours	\$83.17

Saturday

First 8 hours	\$83.17
9th hour	\$83.17
10th hour	\$83.17
Beyond 10 hours	\$83.17

Sunday/Holiday	\$100.65
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - TDH, Backhoe	Operating Engineer	06/20/2024

Classification Description: Hoisting Operator, Two Drum Hoist, Rubber Tire Backhoe

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$75.41	\$97.11	\$118.82

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$97.11
10th hour	\$97.11
Beyond 10 hours	\$97.11

Saturday

First 8 hours	\$97.11
9th hour	\$97.11
10th hour	\$97.11
Beyond 10 hours	\$97.11

Sunday/Holiday	\$118.82
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Boom and Jib or Leads 120' or longer	Operating Engineer	08/01/2024

Classification Description: Engineer when operating Crane with Boom and Jib or Leads 120' or longer

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage				9th hour \$70.96
				10th hour \$70.96
				Beyond 10 hours \$90.70
				Saturday
				First 8 hours \$90.70
				9th hour \$110.45
				10th hour \$110.45
				Beyond 10 hours \$110.45
				Sunday/Holiday
				\$110.45

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Boom and Jib or Leads 140' or longer	Operating Engineer	08/01/2024

Classification Description: Engineer when operating Crane with Boom and Jib or Leads 140' or longer

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$71.78	\$94.91	\$118.02	Over 8-hour day/40-hour week
				9th hour \$71.78
				10th hour \$71.78
				Beyond 10 hours \$91.89
				Saturday
				First 8 hours \$71.78
				9th hour \$111.99
				10th hour \$111.99
				Beyond 10 hours \$111.99
				Sunday/Holiday \$111.99

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Boom and Jib or Leads 220' or longer	Operating Engineer	08/01/2024

Classification Description: Engineer when operating Crane with Boom and Jib or Leads 220' or longer

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage				9th hour \$92.31
				10th hour \$92.31
				Beyond 10 hours \$92.31
				Saturday
				First 8 hours \$72.08
				9th hour \$112.55
				10th hour \$112.55
				Beyond 10 hours \$112.55
				Sunday/Holiday
				\$112.55

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Boom and Jib or Leads 300' or longer	Operating Engineer	08/01/2024

Classification Description: Engineer when operating Crane with Boom and Jib or Leads 300' or longer

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage				9th hour \$73.58
				10th hour \$73.58
				Beyond 10 hours \$73.58
				Saturday
				First 8 hours \$73.58
				9th hour \$115.35
				10th hour \$115.35
				Beyond 10 hours \$115.35
				Sunday/Holiday
				\$115.35

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Mon-Fri-Double time after 12 hrs/day
Sat-time and a half first 8 hours unless over 40, then double time

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Boom and Jib or Leads 400' or longer	Operating Engineer	08/01/2024

Classification Description: Engineer when operating Crane with Boom and Jib or Leads 400' or longer

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$75.08	\$96.62	\$118.16	Over 8-hour day/40-hour week
Apprentice: Apprentice Engineer 1 - 999 Hours	\$56.05	\$71.31	\$86.56	9th hour \$75.08
Apprentice: Apprentice Engineer 1,000 - 1,999 Hours	\$58.22	\$74.56	\$90.90	10th hour \$75.08
Apprentice: Apprentice Engineer 2,000 - 2,999 Hours	\$60.56	\$78.07	\$95.58	Beyond 10 hours \$96.62
Apprentice: Apprentice Engineer 3,000 - 3,999 hours	\$62.58	\$81.11	\$99.62	Saturday
Apprentice: Apprentice Engineer 4,000 - 4,999 hours	\$64.77	\$84.39	\$104.00	First 8 hours \$75.08
Apprentice: Apprentice Engineer 4,999 - 5,999 hours	\$68.03	\$89.28	\$110.52	9th hour \$118.16
				10th hour \$118.16
				Beyond 10 hours \$118.16
				Sunday/Holiday \$118.16

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Compressor or Welding Machine	Operating Engineer	08/01/2024

Classification Description: Engineer operating Compressor or Welding Machine

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$60.11	\$77.40	\$94.68

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$60.11
10th hour	\$60.11
Beyond 10 hours	\$90.17

Saturday

First 8 hours	\$60.11
9th hour	\$90.17
10th hour	\$90.17
Beyond 10 hours	\$90.17

Sunday/Holiday	\$90.17
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer-Forklift	Operating Engineer	08/01/2024

Classification Description: Lull or Extend-A-Boom Forklift

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.42	\$88.36	\$109.30

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$67.42
10th hour	\$67.42
Beyond 10 hours	\$103.84

Saturday

First 8 hours	\$67.42
9th hour	\$103.84
10th hour	\$103.84
Beyond 10 hours	\$103.84

Sunday/Holiday	\$103.84
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Regular Crane Operator	Operating Engineer	08/01/2024

Classification Description: Job Mechanic, Concrete Pump with Boom, and High/Long Reach Shear

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$70.10	\$92.38	\$114.66	Over 8-hour day/40-hour week
				9th hour \$70.10
				10th hour \$70.10
				Beyond 10 hours \$89.47
				Saturday
				First 8 hours \$89.47
				9th hour \$108.85
				10th hour \$108.85
				Beyond 10 hours \$108.85
				Sunday/Holiday \$108.85

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Regular Engineer	Operating Engineer	08/01/2024

Classification Description: Hydro Excavator, Remote Controlled Concrete Breaker, and Concrete Saw operator

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage	\$69.13	\$90.93	\$112.72	9th hour \$69.13
				10th hour \$69.13
				Beyond 10 hours \$88.08
				Saturday
				First 8 hours \$69.13
				9th hour \$107.03
				10th hour \$107.03
				Beyond 10 hours \$107.03
				Sunday/Holiday
				\$107.03

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Monday-Friday-Double time after 12hrs/day
Saturday-Double time starts after 40 hrs otherwise first 8 are time and a half

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Marine Construction and Dredging Class I - OE324	Operating Engineer - Marine Construction	01/16/2025

Classification Description: Craft Foreman, Diver/Wet Tender, Engineer, Engineer (hydraulic dredge), Blaster

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$84.30	\$110.05	\$135.80	Over 8-hour day/40-hour week
				9th hour \$110.05
				10th hour \$110.05
				Beyond 10 hours \$110.05
				Saturday
				First 8 hours \$110.05
				9th hour \$110.05
				10th hour \$110.05
				Beyond 10 hours \$110.05
				Sunday/Holiday \$135.80

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Marine Construction and Dredging Class II A - OE324	Operating Engineer - Marine Construction	01/16/2025

Classification Description: Crane, Backhoe, Material Handler, All Self-Propelled Drill Rigs, Mechanic/Welder, Asst. Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$82.80	\$107.80	\$132.80

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$107.80
10th hour	\$107.80
Beyond 10 hours	\$107.80

Saturday

First 8 hours	\$107.80
9th hour	\$107.80
10th hour	\$107.80
Beyond 10 hours	\$107.80

Sunday/Holiday	\$132.80
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Marine Construction and Dredging Class II B - OE324	Operating Engineer - Marine Construction	01/16/2025

Classification Description: Friction, Lattice Boom, or Crane License Cert., Endorse Tug or Tow Boat Operator

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$85.80	\$112.30	\$138.80	Over 8-hour day/40-hour week
				9th hour \$112.30
				10th hour \$112.30
				Beyond 10 hours \$112.30
				Saturday
				First 8 hours \$112.30
				9th hour \$112.30
				10th hour \$112.30
				Beyond 10 hours \$112.30
				Sunday/Holiday \$138.80

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Marine Construction and Dredging Class III - OE324	Operating Engineer - Marine Construction	01/16/2025

Classification Description: Deck Equipment Operator, (Machineryman), Maintenance of Crane, Tug/Launch Operator, Loader/Dozer on Barge, Deck Machinery, etc.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$78.30	\$101.05	\$123.80

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$101.05
10th hour	\$101.05
Beyond 10 hours	\$101.05

Saturday

First 8 hours	\$101.05
9th hour	\$101.05
10th hour	\$101.05
Beyond 10 hours	\$101.05

Sunday/Holiday	\$123.80
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Marine Construction and Dredging Class IV - OE324	Operating Engineer - Marine Construction	01/16/2025

Classification Description: Deck Equipment Operator, Machineryman/Fireman, (4 equipment units or more), Off Road Trucks, Deck Hand, Tug/Engineer, Crane Maint. (50 ton and under/Backhoe 115,000 lbs. or less), Asst. Tug Operator, Blaster Helper.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.35	\$93.85	\$114.35

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$93.85
10th hour	\$93.85
Beyond 10 hours	\$93.85

Saturday

First 8 hours	\$93.85
9th hour	\$93.85
10th hour	\$93.85
Beyond 10 hours	\$93.85

Sunday/Holiday	\$114.35
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Crane Operator - 324 B400	Operating Engineer Steel Work	06/20/2024

Classification Description: Crane Operator w/400' Boom or Longer w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$81.86	\$106.37	\$130.88

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$106.37
10th hour	\$106.37
Beyond 10 hours	\$106.37

Saturday

First 8 hours	\$106.37
9th hour	\$106.37
10th hour	\$106.37
Beyond 10 hours	\$106.37

Sunday/Holiday	\$130.88
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time over 12 hours Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 A300	Operating Engineer Steel Work	06/20/2024

Classification Description: Crane with boom & jib or leads 300' or longer
Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$79.36	\$102.78	\$126.20

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$102.78
10th hour	\$102.78
Beyond 10 hours	\$102.78

Saturday

First 8 hours	\$102.78
9th hour	\$102.78
10th hour	\$102.78
Beyond 10 hours	\$102.78

Sunday/Holiday	\$126.20
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time over 12 hours Mon-Sat.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 A400	Operating Engineer Steel Work	06/20/2024

Classification Description: Crane with boom & jib or leads 400' or longer
Work in excess of 12 per day M-F shall be paid at double time.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$80.86	\$104.94	\$129.01

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$104.93
10th hour	\$104.93
Beyond 10 hours	\$104.93

Saturday

First 8 hours	\$104.93
9th hour	\$104.93
10th hour	\$104.93
Beyond 10 hours	\$104.93

Sunday/Holiday	\$129.01
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time over 12 hours/day Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 A50	Operating Engineer Steel Work	06/20/2024

Classification Description: Tower Crane & Derrick Operator 50' or More

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.14	\$99.59	\$122.05

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$99.59
10th hour	\$99.59
Beyond 10 hours	\$99.59

Saturday

First 8 hours	\$99.59
9th hour	\$99.59
10th hour	\$99.59
Beyond 10 hours	\$99.59

Sunday/Holiday	\$122.05
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 B140	Operating Engineer Steel Work	06/20/2024

Classification Description: Crane Operator w/140' of /Boom or Longer w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$78.59	\$101.68	\$124.76

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$101.67
10th hour	\$101.67
Beyond 10 hours	\$101.67

Saturday

First 8 hours	\$101.67
9th hour	\$101.67
10th hour	\$101.67
Beyond 10 hours	\$101.67

Sunday/Holiday	\$124.76
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 B220	Operating Engineer Steel Work	06/20/2024

Classification Description: Crane Operator w/220' of Boom or Longer w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$78.86	\$100.76	\$123.97

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$102.06
10th hour	\$102.06
Beyond 10 hours	\$102.06

Saturday

First 8 hours	\$102.06
9th hour	\$102.06
10th hour	\$102.06
Beyond 10 hours	\$102.06

Sunday/Holiday	\$125.27
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 hours Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 B300	Operating Engineer Steel Work	06/20/2024

Classification Description: Crane Operator w/300' of Boom or Longer w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$80.36	\$104.22	\$128.07

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$104.22
10th hour	\$104.22
Beyond 10 hours	\$104.22

Saturday

First 8 hours	\$104.22
9th hour	\$104.22
10th hour	\$104.22
Beyond 10 hours	\$104.22

Sunday/Holiday	\$128.07
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time over 12 hours Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 B50	Operating Engineer Steel Work	06/20/2024

Classification Description: Tower Crane & Derrick Operator 50' or more w/Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$78.14	\$101.03	\$123.92

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$101.03
10th hour	\$101.03
Beyond 10 hours	\$101.03

Saturday

First 8 hours	\$101.03
9th hour	\$101.03
10th hour	\$101.03
Beyond 10 hours	\$101.03

Sunday/Holiday	\$123.92
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - 324 PRE60118	Operating Engineer Steel Work	06/20/2024

Classification Description: Oiler/pumps over 6" **Applies to Operators who have previously worked under this classification PRIOR to 6/1/18**

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$61.22	\$76.76	\$92.29

Overtime Provisions

Over 8-hour day/40-hour

week

9th hour	\$76.75
10th hour	\$76.75
Beyond 10 hours	\$76.75

Saturday

First 8 hours	\$76.75
9th hour	\$76.75
10th hour	\$76.75
Beyond 10 hours	\$76.75

Sunday/Holiday

\$92.29

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Overtime Rate Comment: Double time after 12 Mon-Sat

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer - EF	Operating Engineer Steel Work	05/10/2024

Classification Description: Extended boom forklift over 5,000 lb capacity, 1 Drum Hoist

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$72.21	\$92.53	\$112.84

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$92.53
10th hour	\$92.53
Beyond 10 hours	\$112.84

Saturday

First 8 hours	\$92.53
9th hour	\$92.53
10th hour	\$92.53
Beyond 10 hours	\$112.84

Sunday/Holiday	\$112.84
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW120	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 120' boom or longer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$74.14	\$95.24	\$116.33

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$95.24
10th hour	\$95.24
Beyond 10 hours	\$116.33

Saturday

First 8 hours	\$95.24
9th hour	\$95.24
10th hour	\$95.24
Beyond 10 hours	\$116.33

Sunday/Holiday	\$116.33
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW120	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 120' boom or longer w/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$75.01	\$96.54	\$118.07

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$96.54
10th hour	\$96.54
Beyond 10 hours	\$118.07

Saturday

First 8 hours	\$96.54
9th hour	\$96.54
10th hour	\$96.54
Beyond 10 hours	\$118.07

Sunday/Holiday	\$118.07
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW140	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 140' boom or longer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$75.19	\$96.80	\$118.41

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$96.80
10th hour	\$96.80
Beyond 10 hours	\$118.41

Saturday

First 8 hours	\$96.80
9th hour	\$96.80
10th hour	\$96.80
Beyond 10 hours	\$118.41

Sunday/Holiday	\$118.41
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW140	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 140' boom or longer W/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.19	\$98.24	\$120.28

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$120.28

Saturday

First 8 hours	\$98.24
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$120.28

Sunday/Holiday	\$120.28
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW220	Operating Engineer Steel Work	05/10/2024

Classification Description: Boom & Jib 220' or longer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.46	\$98.62	\$120.78

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.62
10th hour	\$98.62
Beyond 10 hours	\$120.78

Saturday

First 8 hours	\$98.62
9th hour	\$98.62
10th hour	\$98.62
Beyond 10 hours	\$120.78

Sunday/Holiday	\$120.78
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW2200	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 220' boom or longer w/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$74.01	\$95.11	\$116.20

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$95.11
10th hour	\$95.11
Beyond 10 hours	\$116.20

Saturday

First 8 hours	\$95.11
9th hour	\$95.11
10th hour	\$95.11
Beyond 10 hours	\$116.20

Sunday/Holiday	\$116.20
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW300	Operating Engineer Steel Work	05/10/2024

Classification Description: Boom & Jib 300' or longer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.96	\$99.34	\$121.72

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$99.34
10th hour	\$99.34
Beyond 10 hours	\$121.72

Saturday

First 8 hours	\$99.34
9th hour	\$99.34
10th hour	\$99.34
Beyond 10 hours	\$121.72

Sunday/Holiday	\$121.72
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW3000	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 300' boom or longer w/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$77.96	\$100.78	\$123.59

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$100.78
10th hour	\$100.78
Beyond 10 hours	\$123.59

Saturday

First 8 hours	\$100.78
9th hour	\$100.78
10th hour	\$100.78
Beyond 10 hours	\$123.59

Sunday/Holiday	\$123.59
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW400	Operating Engineer Steel Work	05/10/2024

Classification Description: Boom & Jib 400' or longer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$78.46	\$101.49	\$124.52

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$101.49
10th hour	\$101.49
Beyond 10 hours	\$124.52

Saturday

First 8 hours	\$101.49
9th hour	\$101.49
10th hour	\$101.49
Beyond 10 hours	\$124.52

Sunday/Holiday	\$124.52
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SW400	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane w/ 400' boom or longer w/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$79.46	\$102.93	\$126.39

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$102.93
10th hour	\$102.93
Beyond 10 hours	\$126.39

Saturday

First 8 hours	\$102.93
9th hour	\$102.93
10th hour	\$102.93
Beyond 10 hours	\$126.39

Sunday/Holiday	\$126.39
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWCO	Operating Engineer Steel Work	05/10/2024

Classification Description: Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$73.65	\$94.59	\$115.53	Over 8-hour day/40-hour week
Apprentice: 0-999 hours	\$59.16	\$76.02	\$92.88	9th hour \$94.59
Apprentice: 1,000-1,999 hours	\$61.56	\$79.63	\$97.68	10th hour \$94.59
Apprentice: 2,000-2,999 hours	\$63.96	\$83.22	\$102.48	Beyond 10 hours \$115.53
Apprentice: 3,000-3,999 hours	\$66.38	\$84.18	\$101.98	Saturday
Apprentice: 4,000-4,999 hours	\$68.78	\$90.46	\$112.12	First 8 hours \$94.59
Apprentice: 5,000 hours	\$71.20	\$91.09	\$110.99	9th hour \$94.59
				10th hour \$94.59
				Beyond 10 hours \$115.53
				Sunday/Holiday \$115.53

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWCO-Operating Engineer Steel Work		05/10/2024

Classification Description: Crane Operator w/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$74.65	\$96.03	\$117.40

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$96.03
10th hour	\$96.03
Beyond 10 hours	\$117.40

Saturday

First 8 hours	\$96.03
9th hour	\$96.03
10th hour	\$96.03
Beyond 10 hours	\$117.40

Sunday/Holiday	\$117.40
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWCW	Operating Engineer Steel Work	05/10/2024

Classification Description: Compressor or Welder Operator

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$37.03	\$49.48	\$61.92

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$47.85
10th hour	\$47.85
Beyond 10 hours	\$58.67

Saturday

First 8 hours	\$47.85
9th hour	\$47.85
10th hour	\$47.85
Beyond 10 hours	\$58.67

Sunday/Holiday	\$58.67
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWHO	Operating Engineer Steel Work	05/10/2024

Classification Description: Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.01	\$93.67	\$114.33

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$93.67
10th hour	\$93.67
Beyond 10 hours	\$114.33

Saturday

First 8 hours	\$93.67
9th hour	\$93.67
10th hour	\$93.67
Beyond 10 hours	\$114.33

Sunday/Holiday	\$114.33
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWO	Operating Engineer Steel Work	05/10/2024

Classification Description: Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.42	\$67.61	\$81.80

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$65.74
10th hour	\$65.74
Beyond 10 hours	\$78.06

Saturday

First 8 hours	\$65.74
9th hour	\$65.74
10th hour	\$65.74
Beyond 10 hours	\$78.06

Sunday/Holiday	\$78.06
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWTD50	Operating Engineer Steel Work	05/10/2024

Classification Description: Tower Crane & Derrick where work is 50' or more

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$74.74	\$96.16	\$117.57

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$96.16
10th hour	\$96.16
Beyond 10 hours	\$117.57

Saturday

First 8 hours	\$96.16
9th hour	\$96.16
10th hour	\$96.16
Beyond 10 hours	\$117.57

Sunday/Holiday	\$117.57
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Steel Work - SWTD50 O	Operating Engineer Steel Work	05/10/2024

Classification Description: Tower Crane & Derrick 50' or more w/ Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$75.84	\$97.69	\$119.54

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$97.69
10th hour	\$97.69
Beyond 10 hours	\$119.54

Saturday

First 8 hours	\$97.69
9th hour	\$97.69
10th hour	\$97.69
Beyond 10 hours	\$119.54

Sunday/Holiday	\$119.54
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 10s allowed M-Th with Friday makeup day because of bad weather

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Underground-324- Class I	Operating Engineer Underground	10/31/2024

Classification Description: Class I Equipment-Air Compressors in Manifold with throttle valve Auto Grade or similar type machine
Backfill Tamper Backhoe
Backhoe on Farm Type Tractor 45 H.P. & over. Ballast Regulator (R.R.)
Batch Plant (concrete - central mix) Batch Plant Operator (concrete) Blade Grader Operator
Bulldozer
Caisson Drilling Machine Cherry Picker--15 ton or over Clamshell
Concrete/Asphalt Saw Operator - Power Driven (3yrs experience or more) Concrete Belt Placer (Formless)
Concrete Cure/Finish Machine Operator
Concrete Mixer 21 cu. ft. or over Concrete Paver [two (2) drums or larger] Concrete Pump (Truck Mount)
Concrete Pump (3 inch and over) Concrete Pump with Boom Operator Conveyor Loader Operator (Euclid type) Core Drilling Machine
Crane (Crawler, truck type or pile driving)
Crane or De1Tick with any attachment incl. clamshell, dragline, shovel, backhoe, etc. Directional Drill/Boring Machine Operator
Dozer Dragline
Dredge Engineer Dredge Operator
Drilling Machine on which the drill is an integral part
Earth Mover--rubber tired--(paddle wheel, 619, 631, TS-24 or similar type) Earth Mover rubber tired--tandem (\$.50 cents per hr. added for each bowl) Elevating
Grader Operator
End Loader
End Loader Operator (1½ yard capacity and over)
Excavator
Farm type tractor with attached pan
Finishing Machine Operator (Asphalt or Concrete) Foreman/Operating Engineer
Forklift (10 ton or over)
GPS or Electronic Grade on motorized equipment Gradall and similar type machine
Grader
Gravel Processing plant (portable) Operator of Guard Rail Post Driver Haul Units (off-highway) Helicopter crew
Highlift Shovel--1-1 /2 cu. yd. or over Hoisting Engineer
Horizontal Directional Drill Hydraulic Boom Truck
Hydro demolition equipment (water blaster) Hydro Excavator
Loader--Self-propelled (Belt-Chain- Wheel) (Holland or similar type) Locomotive and/or Dinkey Engine
Mechanic Milling Machine
Mucking Machine
Operator of Guard Rail Post Driver Paver Operator - Concrete
Pile Driver--Skid or Crawler Power Shovel
Rock Breaking Plant
Rock Crushing Plant (Portable)
Root Rake, Tractor Mounted Sand Blaster Vacuum Roto Mill
Scraper Self-Propelled or Tractor Drawn

Self-propelled Widener or Gravel distributing shoulder machine Shovel Operator
Side Boom Tractor (type D-4 or equivalent or larger) Slope Paver
Stump Remover Tractor Mounted Surface Heater & Planer
Surface Roller with Dozer Blade
Swinging Boom Truck (over 12-ton capacity) Tilling Machine or (Roto Grader)
Tractor Operator
Tractor--Boom, Winch or Hoe Head Tractor--Push
Tractor with Scoop Tractor Mounted Spreader Tree Mover
Trench Machine (ladder or wheel type) Trencher (over 8ft. digging capacity) Tugboat Operator
Tunnel Boring Machine Tunnel Shield
Vacuum Machine/Truck Operator Well Drilling Machine
Well Drilling Rig
Winch Truck with A Frame

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$68.12	\$87.01	\$105.89
Apprentice: Apprentice Engineer 0-999 hours	\$54.36	\$69.57	\$84.77
Apprentice: Apprentice Engineer 1,000-1,999 hours	\$56.53	\$72.83	\$89.11
Apprentice: Apprentice Engineer 2,000-2,999 hours	\$58.69	\$76.06	\$93.43
Apprentice: Apprentice Engineer 3,000-3,999 hours	\$60.87	\$79.33	\$97.79
Apprentice: Apprentice Engineer 4,000-4,999 hours	\$64.22	\$84.36	\$104.49
Apprentice: Apprentice Engineer 5,000-5,999 hours	\$65.06	\$85.62	\$106.17

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

In the event work is unable to be performed on account of weather Monday through Thursday, then Friday work may be scheduled for the ten (10) hours, at straight-time.

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$87.00
10th hour	\$87.00
Beyond 10 hours	\$87.00

Saturday

First 8 hours	\$87.00
9th hour	\$87.00
10th hour	\$87.00
Beyond 10 hours	\$87.00

Sunday/Holiday	\$105.89
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Underground-324- Class II	Operating Engineer Underground	10/31/2024

Classification Description: Class II Equipment

Air Compressor with Throttle Valve or Clever Brooks type comb. Backhoe (with 3/8-yard bucket or less)

Backhoe on Farm Type Tractor under 45 H.P.

Batch Plant (concrete-dry batch)

Boom Truck (power swing type boom)

Cherry Picker under 15 ton

Crusher

Crusher Operator

Concrete Pump

Concrete Mesh Depressor--independently operated Concrete Spreader--Power Driven

End Dumps when operated by an Operating Engineer End Loader under 1-1/2 cu yd.

Guniting Machine

Head Greaser

Hoist

Lowboy Operator

Mesh or Steel Placer (motorized)

Multiple Tamping Machine (R.R.)

Power Curing Spraying Machine (Formless)

P.C.C. Concrete Belt Placer (form type)

Pull Grader--Power Control

Pump Operator (6" discharge or over, gas diesel, powered or generator of 300 amp or larger)

Refrigerating Machine--Freezing operation Ross Carrier

Self-propelled convey transfer devise. Sheepfoot Roller (self-propelled)

Side Boom Tractor (smaller than D-4 type or equivalent)

Sweeper (Wayne type and similar equipment)

Telescoping laser finish machine (laser screed)

Tractor (pneu-tired, other than backhoe or front-end loader)

Trencher (8ft. digging capacity and smaller)

Trench Machine 24" and under

Tube Float (motorized)

Vac Truck

Washing Plant Operator Welder

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$64.00	\$83.38	\$102.75

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$80.82
10th hour	\$80.82
Beyond 10 hours	\$80.82

Saturday

First 8 hours	\$80.82
9th hour	\$80.82
10th hour	\$80.82
Beyond 10 hours	\$80.82

Sunday/Holiday	\$97.65
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

In the event work is unable to be performed on account of weather Monday through Thursday, then Friday work may be scheduled for the ten (10) hours, at straight-time.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Underground-324- Class III	Operating Engineer Underground	10/31/2024

Classification Description: Class III Equipment

Air Compressor (600 CFM or larger)

Air Compressor [two (2) or more - less than 600 CFM] Base Paver (Jersey or similar type machine)

Boom Truck (Non swinging, Non powered type boom) Concrete Breaker

Concrete Finishing Machine

Concrete Paver (1 drum - ½ yard or larger) Curb Machine

Elevator (other than passenger) Hoist (one drum)

Jacks - Hydraulic Power-driven multiple jack system Maintenance Man

Mechanics Helper Paving Breaker

Power Broom Self-propelled

Pump [two (2) or more 4 inch up to 6-inch discharge gas or diesel powered-excluding submersible pumps)

Pumpcrete Machine and similar equipment Roller (Earth & Sub-base material) Screening Plant Operator

Spike Machine (R.R.)

Tamper-Multiple Vibrating-Earth and Sub-base material Tractor with Drill--50 H.P. or over Well Point System Wagon Drill (multiple)

Welding Machine or Generator [two (2) or more 300 amp. Or larger -gas or diesel powered]

Well Point System

Widener (Apsco or similar type)

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$63.27	\$82.28	\$101.29

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$79.78
10th hour	\$79.78
Beyond 10 hours	\$79.78

Saturday

First 8 hours	\$79.78
9th hour	\$79.78
10th hour	\$79.78
Beyond 10 hours	\$79.78

Sunday/Holiday

\$96.29

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

In the event work is unable to be performed on account of weather Monday through Thursday, then Friday work may be scheduled for the ten (10) hours, at straight-time.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Underground-324- Class IV	Operating Engineer Underground	10/31/2024

Classification Description: Class IV Equipment

Air Compressor Operator (over 250 CFM)

All Mulching Equipment

All Walk Behind or Remote-Control Powered Equipment (autonomous equipment)

Assistant to Engineer Automatic Dry Batch Plant

Belt Spreader (motorized including transfer device by remote, wireless or cable) Boiler

Boom or Winch truck operator

Broom & Belt Machine

Chair Cart (Self-propelled) Concrete Pumps (under 3")

Curing Equipment Operator (self-propelled)

Deck Hand

Digger Post Hole (Power-driven)

End loader Operator (under 3/4-yard capacity)

Extend A Boom Forklift--under 10 Ton

Farm Tractor with attachments Finishing Machine (concrete)

Forklift under 10 ton

Form Grader (if motorized)

Georgia Buggy -Power wheel barrel I ¾ yard with a seat Generator (15 kw or greater)

Greaser Helper

Hydraulic pipe pushing machine Mechanical Heater

Mechanics Helper

Outboard or Inboard Motorboat Power Bin Operator

Pug Mill

Pumps - [two (2) or more up to 4 in. discharge if used three (3) hours or more a day - gas or diesel powered- excluding submersible pumps]

Roller (other than asphalt)

Seaman Tiller

Skid Steer

Stump Remover (Grinder)

Sweeper (Wayne type and similar equipment) Tamper

Trencher (service)

Vibratory Compaction Equipment Operator (6 ft. wide or over)

Walk Behind Forklift

Water Wagon

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$62.70	\$81.43	\$100.15

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$78.96
10th hour	\$78.96
Beyond 10 hours	\$78.96

Saturday

First 8 hours	\$78.96
9th hour	\$78.96
10th hour	\$78.96
Beyond 10 hours	\$78.96

Sunday/Holiday	\$95.22
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

In the event work is unable to be performed on account of weather Monday through Thursday, then Friday work may be scheduled for the ten (10) hours, at straight-time.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Operating Engineer Underground-324- Class V	Operating Engineer Underground	10/31/2024

Classification Description: Class V Equipment

Concrete/Asphalt Saw Operator- Power Driven (Less than 3 yrs. experience) Density/Soil Engineer
Directional Boring Utility Man
Discharge Pumps 4" or less (1 - 4 units) Dump Truck Operator
Dumper (Wagon, Truck, Etc.) - or trade Fence Erector /Power Driven
Guard Post Driver Operator (power driven) Hydra Seeder
Light Plants (1 to 5 units) Oiler Fireman
Operator of minor equip.
Roto Mill Utility Grade Control Operator
Scissor lifts and basket lifts where used for material hoisting
Sign Installer/Sign Installer with Remote Control Operated Equipment
Straw Blower or Brush Mulcher
Top Man, And Railroad Track and Trestle Engineer Utility Engineer
Water Blasting Utility Engineer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$39.95	\$53.88	\$67.80

Overtime Provisions

**Over 8-hour day/40-hour
week**

9th hour	\$52.06
10th hour	\$52.06
Beyond 10 hours	\$52.06

Saturday

First 8 hours	\$52.06
9th hour	\$52.06
10th hour	\$52.06
Beyond 10 hours	\$52.06

Sunday/Holiday	\$64.17
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

In the event work is unable to be performed on account of weather Monday through Thursday, then Friday work may be scheduled for the ten (10) hours, at straight-time.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Pipe and Manhole Rehab - 1	Pipe and Manhole Rehab	05/10/2024

Classification Description: General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$28.20	\$38.20	\$48.19

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$38.20
10th hour	\$38.20
Beyond 10 hours	\$38.20

Saturday

First 8 hours	\$38.20
9th hour	\$38.20
10th hour	\$38.20
Beyond 10 hours	\$38.20

Sunday/Holiday	\$38.20
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Pipe and Manhole Rehab - 2	Pipe and Manhole Rehab	05/10/2024

Classification Description: Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$32.70	\$44.95	\$57.19

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$44.95
10th hour	\$44.95
Beyond 10 hours	\$44.95

Saturday

First 8 hours	\$44.95
9th hour	\$44.95
10th hour	\$44.95
Beyond 10 hours	\$44.95

Sunday/Holiday	\$44.95
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Pipe and Manhole Rehab - 3	Pipe and Manhole Rehab	05/10/2024

Classification Description: CCTV Technician/Combo Unit Operator: unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$31.45	\$43.07	\$54.69

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$43.07
10th hour	\$43.07
Beyond 10 hours	\$43.07

Saturday

First 8 hours	\$43.07
9th hour	\$43.07
10th hour	\$43.07
Beyond 10 hours	\$43.07

Sunday/Holiday	\$43.07
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Pipe and Manhole Rehab - 4	Pipe and Manhole Rehab	05/10/2024

Classification Description: Boiler Operator: unit driver and operator of steam/water heater units and all ancillary equipment associated

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$33.20	\$45.70	\$58.19

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$45.70
10th hour	\$45.70
Beyond 10 hours	\$45.70

Saturday

First 8 hours	\$45.70
9th hour	\$45.70
10th hour	\$45.70
Beyond 10 hours	\$45.70

Sunday/Holiday	\$45.70
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Pipe and Manhole Rehab - 5	Pipe and Manhole Rehab	05/10/2024

Classification Description: Combo Unit driver & Jetter-Vac Operator

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$33.20	\$45.70	\$58.19

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$45.70
10th hour	\$45.70
Beyond 10 hours	\$45.70

Saturday

First 8 hours	\$45.70
9th hour	\$45.70
10th hour	\$45.70
Beyond 10 hours	\$45.70

Sunday/Holiday	\$45.70
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Pipe and Manhole Rehab - 6	Pipe and Manhole Rehab	05/10/2024

Classification Description: Pipe Bursting & Slip-lining Equipment Operator

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$34.20	\$47.20	\$60.19

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$47.20
10th hour	\$47.20
Beyond 10 hours	\$47.20

Saturday

First 8 hours	\$47.20
9th hour	\$47.20
10th hour	\$47.20
Beyond 10 hours	\$47.20

Sunday/Holiday	\$47.20
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Plasterer	Plasterer	05/10/2024

Classification Description: Plasterer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$51.79	\$66.91	\$82.02
Apprentice: 1st 6 months	\$34.70	\$43.77	\$52.84
Apprentice: 2nd 6 months	\$36.21	\$46.04	\$55.86
Apprentice: 3rd 6 months	\$37.72	\$48.30	\$58.88
Apprentice: 4th 6 months	\$39.23	\$50.56	\$61.90
Apprentice: 5th 6 months	\$40.74	\$52.83	\$64.92
Apprentice: 6th 6 months	\$42.26	\$55.11	\$67.96
Apprentice: 7th 6 months	\$43.77	\$57.38	\$70.98
Apprentice: 8th 6 months	\$45.28	\$59.64	\$74.00

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$66.91
10th hour	\$66.91
Beyond 10 hours	\$66.91

Saturday

First 8 hours	\$66.91
9th hour	\$66.91
10th hour	\$66.91
Beyond 10 hours	\$66.91

Sunday/Holiday	\$82.02
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Plumber, Pipefitter, HVAC-R	Plumber, Pipefitter & HVAC	05/10/2024

Classification Description: Plumber, Pipefitter, HVAC-R

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$62.59	\$93.89	\$125.18
Apprentice: 10th period	\$58.59	\$87.89	\$117.18
Apprentice: 1st period	\$38.39	\$57.59	\$76.78
Apprentice: 2nd period	\$42.59	\$63.89	\$85.18
Apprentice: 3rd period	\$44.59	\$66.89	\$89.18
Apprentice: 4th period	\$46.59	\$69.89	\$93.18
Apprentice: 5th period	\$48.59	\$72.89	\$97.18
Apprentice: 6th period	\$50.59	\$75.89	\$101.18
Apprentice: 7th period	\$52.59	\$78.89	\$105.18
Apprentice: 8th period	\$54.59	\$81.89	\$109.18
Apprentice: 9th period	\$56.59	\$84.89	\$113.18

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$82.59
10th hour	\$82.59
Beyond 10 hours	\$82.59

Saturday

First 8 hours	\$82.59
9th hour	\$82.59
10th hour	\$82.59
Beyond 10 hours	\$82.59

Sunday/Holiday	\$102.59
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman 1B - Class 22C	Residential Wireman	01/23/2025

Classification Description: Journeyman Residential Wireman1B - Class 22C (2 to 3 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage				9th hour \$59.68
				10th hour \$59.68
				Beyond 10 hours \$59.68
				Saturday
				First 8 hours \$59.68
				9th hour \$59.68
				10th hour \$59.68
				Beyond 10 hours \$59.68
				Sunday/Holiday \$73.69

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22E	Residential Wireman	01/23/2025

Classification Description: Journeyman Residential Wireman A - Class 22E (6+ years)

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.59	\$68.39	\$91.18

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$58.60
10th hour	\$58.60
Beyond 10 hours	\$58.60

Saturday

First 8 hours	\$58.60
9th hour	\$58.60
10th hour	\$58.60
Beyond 10 hours	\$58.60

Sunday/Holiday	\$71.61
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22B	Residential Wireman	05/10/2024

Classification Description: Journeyman Residential Wireman A - Class 22B (0 to 2 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$68.41	\$90.81	\$113.20	Over 8-hour day/40-hour week
Apprentice: 1st Period	\$28.38	\$35.10	\$41.82	9th hour \$90.81
Apprentice: 2nd Period	\$25.59	\$30.65	\$35.71	10th hour \$90.81
Apprentice: 3rd Period	\$40.90	\$38.84	\$45.62	Beyond 10 hours \$90.81
Apprentice: 4th Period	\$46.39	\$59.82	\$73.26	Saturday
Apprentice: 5th Period	\$51.90	\$67.57	\$83.25	First 8 hours \$90.81
Apprentice: 6th Period	\$57.40	\$75.31	\$93.23	9th hour \$90.81
Apprentice: 7th Period	\$30.89	\$46.34	\$61.78	10th hour \$90.81
Apprentice: 8th Period	\$32.32	\$48.48	\$64.64	Beyond 10 hours \$90.81
				Sunday/Holiday \$113.20

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22B	Residential Wireman	05/10/2024

Classification Description: Journeyman Residential Wireman A - Class 22B (0 to 2 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$45.71	\$68.57	\$91.42	Over 8-hour day/40-hour week
Apprentice: 1st Period	\$23.65	\$14.94	\$14.94	9th hour \$60.22
Apprentice: 2nd Period	\$27.08	\$15.47	\$15.47	10th hour \$60.22
Apprentice: 3rd Period	\$33.01	\$18.50	\$18.50	Beyond 10 hours \$60.22
Apprentice: 4th Period	\$36.93	\$19.52	\$19.52	Saturday
Apprentice: 5th Period	\$40.86	\$20.55	\$20.55	First 8 hours \$60.22
Apprentice: 6th Period	\$44.79	\$21.57	\$21.57	9th hour \$60.22
Apprentice: 7th Period	\$33.04	\$6.92	\$6.92	10th hour \$60.22
Apprentice: 8th Period	\$34.59	\$7.02	\$7.02	Beyond 10 hours \$60.22
				Sunday/Holiday \$74.73

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22B	Residential Wireman	05/10/2024

Classification Description: Journeyman Residential Wireman A - Class 22B (0 to 2 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$68.32	\$89.72	\$111.11	Over 8-hour day/40-hour week
Apprentice: 1st Period	\$28.38	\$35.10	\$41.82	9th hour \$89.72
Apprentice: 2nd Period	\$25.59	\$30.65	\$35.71	10th hour \$89.72
Apprentice: 3rd Period	\$40.90	\$38.84	\$45.62	Beyond 10 hours \$89.72
Apprentice: 4th Period	\$46.39	\$59.82	\$73.26	Saturday
Apprentice: 5th Period	\$51.90	\$67.57	\$83.25	First 8 hours \$89.72
Apprentice: 6th Period	\$57.40	\$75.31	\$93.23	9th hour \$89.72
Apprentice: 7th Period	\$30.89	\$46.34	\$61.78	10th hour \$89.72
Apprentice: 8th Period	\$32.32	\$48.48	\$64.64	Beyond 10 hours \$89.72
				Sunday/Holiday \$111.11

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22B	Residential Wireman	05/10/2024

Classification Description: Journeyman Residential Wireman A - Class 22B (0 to 2 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$42.90	\$55.22	\$67.53	Over 8-hour day/40-hour week
Apprentice: 1st Period	\$28.38	\$35.10	\$41.82	9th hour \$55.22
Apprentice: 2nd Period	\$25.59	\$30.65	\$35.71	10th hour \$55.22
Apprentice: 3rd Period	\$40.90	\$38.84	\$45.62	Beyond 10 hours \$55.22
Apprentice: 4th Period	\$46.39	\$59.82	\$73.26	Saturday
Apprentice: 5th Period	\$51.90	\$67.57	\$83.25	First 8 hours \$55.22
Apprentice: 6th Period	\$57.40	\$75.31	\$93.23	9th hour \$55.22
Apprentice: 7th Period	\$30.89	\$46.34	\$61.78	10th hour \$55.22
Apprentice: 8th Period	\$32.32	\$48.48	\$64.64	Beyond 10 hours \$55.22
				Sunday/Holiday \$67.53

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22B	Residential Wireman	05/10/2024

Classification Description: Journeyman Residential Wireman A - Class 22B (0 to 2 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage	\$42.92	\$55.61	\$68.30	9th hour \$55.61
Apprentice: 1st Period	\$28.38	\$35.10	\$41.82	10th hour \$55.61
Apprentice: 2nd Period	\$25.59	\$30.65	\$35.71	Beyond 10 hours \$55.61
Apprentice: 3rd Period	\$40.90	\$38.84	\$45.62	Saturday
Apprentice: 4th Period	\$46.39	\$59.82	\$73.26	First 8 hours \$55.61
Apprentice: 5th Period	\$51.90	\$67.57	\$83.25	9th hour \$55.61
Apprentice: 6th Period	\$57.40	\$75.31	\$93.23	10th hour \$55.61
Apprentice: 7th Period	\$30.89	\$46.34	\$61.78	Beyond 10 hours \$55.61
Apprentice: 8th Period	\$32.32	\$48.48	\$64.64	Sunday/Holiday \$68.30

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22B	Residential Wireman	05/10/2024

Classification Description: Journeyman Residential Wireman A - Class 22B (0 to 2 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$68.28	\$89.18	\$110.07	Over 8-hour day/40-hour week
Apprentice: 1st Period	\$28.38	\$35.10	\$41.82	9th hour \$89.18
Apprentice: 2nd Period	\$25.59	\$30.65	\$35.71	10th hour \$89.18
Apprentice: 3rd Period	\$40.90	\$38.84	\$45.62	Beyond 10 hours \$89.18
Apprentice: 4th Period	\$46.39	\$59.82	\$73.26	Saturday
Apprentice: 5th Period	\$51.90	\$67.57	\$83.25	First 8 hours \$89.18
Apprentice: 6th Period	\$57.40	\$75.31	\$93.23	9th hour \$89.18
Apprentice: 7th Period	\$30.89	\$46.34	\$61.78	10th hour \$89.18
Apprentice: 8th Period	\$32.32	\$48.48	\$64.64	Beyond 10 hours \$89.18
				Sunday/Holiday \$110.07

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Journeyman Residential Wireman A - Class 22D	Residential Wireman	01/23/2025

Classification Description: Journeyman Residential Wireman A - Class 22D (4 to 6 years)

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage				9th hour \$59.14
				10th hour \$59.14
				Beyond 10 hours \$59.14
				Saturday
				First 8 hours \$59.14
				9th hour \$59.14
				10th hour \$59.14
				Beyond 10 hours \$59.14
				Sunday/Holiday \$72.65

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Roofer	Roofer	05/10/2024

Classification Description: Commercial Roofer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$36.79	\$48.98	\$61.16
Apprentice: 1st period	\$24.61	\$30.70	\$36.80
Apprentice: 2nd period	\$25.82	\$32.52	\$39.22
Apprentice: 3rd period	\$27.04	\$34.35	\$41.66
Apprentice: 4th period	\$28.26	\$36.18	\$44.10
Apprentice: 5th period	\$29.48	\$38.01	\$46.54
Apprentice: 6th period	\$30.70	\$39.84	\$48.98
Apprentice: 7th period	\$31.92	\$41.67	\$51.42
Apprentice: 8th period	\$33.13	\$43.48	\$53.84

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$48.98
10th hour	\$48.98
Beyond 10 hours	\$61.16

Saturday

First 8 hours	\$48.98
9th hour	\$61.16
10th hour	\$61.16
Beyond 10 hours	\$61.16

Sunday/Holiday	\$61.16
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Sewer Relining Operator - Class I	Sewer Relining	05/10/2024

Classification Description: Class I-Operator of audio visual CCTV system including remote in-ground cutter and other equipment used in conjunction with CCTV system.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$52.84	\$69.23	\$85.62
Apprentice: 0-6 months	\$41.58	\$54.66	\$67.74
Apprentice: 6-12 months	\$45.31	\$60.26	\$75.20

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$69.23
10th hour	\$69.23
Beyond 10 hours	\$69.23

Saturday

First 8 hours	\$69.23
9th hour	\$69.23
10th hour	\$69.23
Beyond 10 hours	\$69.23

Sunday/Holiday	\$85.62
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Sewer Relining Operator - Class II	Sewer Relining	05/10/2024

Classification Description: Class II-Operator of hot water heaters and circulation system; water jetters; and vacuum and mechanical debris removal systems and those assisting.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$50.80	\$68.49	\$86.18

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$66.30
10th hour	\$66.30
Beyond 10 hours	\$66.30

Saturday

First 8 hours	\$66.30
9th hour	\$66.30
10th hour	\$66.30
Beyond 10 hours	\$66.30

Sunday/Holiday	\$81.79
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Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Sheet Metal Worker	Sheet Metal Worker	05/10/2024

Classification Description: Sheet Metal Worker

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.92	\$91.48	\$115.03
Apprentice: 1st Year	\$31.17	\$41.07	\$50.97
Apprentice: 2nd Year	\$44.37	\$56.16	\$67.93
Apprentice: 3rd Year	\$46.57	\$59.45	\$72.33
Apprentice: 4th Year	\$48.77	\$62.75	\$76.73
Apprentice: 5th Year	\$55.38	\$72.67	\$89.95

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$85.69
10th hour	\$85.69
Beyond 10 hours	\$103.46

Saturday

First 8 hours	\$85.69
9th hour	\$103.46
10th hour	\$103.46
Beyond 10 hours	\$103.46

Sunday/Holiday	\$103.46
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 ten hour days allowed when scheduled as four consecutive days, Monday thru Friday

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Sprinkler Fitter	Sprinkler Fitter	05/10/2024

Classification Description: Sprinkler Fitter

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$60.34	\$78.45	\$96.56
Apprentice: Class 1	\$24.57	\$32.72	\$40.87
Apprentice: Class 10	\$52.07	\$68.37	\$84.67
Apprentice: Class 2	\$26.38	\$35.43	\$44.49
Apprentice: Class 3	\$39.14	\$49.10	\$59.06
Apprentice: Class 4	\$40.95	\$51.82	\$62.68
Apprentice: Class 5	\$43.01	\$54.78	\$66.55
Apprentice: Class 6	\$44.82	\$57.49	\$70.17
Apprentice: Class 7	\$46.63	\$60.21	\$73.79
Apprentice: Class 8	\$48.45	\$62.94	\$77.43
Apprentice: Class 9	\$50.26	\$65.65	\$81.05

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$78.45
10th hour	\$78.45
Beyond 10 hours	\$78.45

Saturday

First 8 hours	\$78.45
9th hour	\$78.45
10th hour	\$78.45
Beyond 10 hours	\$78.45

Sunday/Holiday	\$96.56
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Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Tower Technician	Tower Technician	05/13/2024

Classification Description:

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$67.89	\$98.24	\$128.58

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24

Saturday

First 8 hours	\$98.24
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$98.24

Sunday/Holiday	\$128.58
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

ONLY due to inclement weather or customer requirements may Friday be used as a make up day if the normal scheduled work week was interrupted and time lost of five (5) hours or more was incurred by workmen covered under the terms of the 6-17-C/6-876-T agreement.

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Truck Driver - RB1	Truck Driver	05/10/2024

Classification Description: on all trucks of 8 cubic yard capacity or less (except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, euclid type equipment, double bottoms and low boys)

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.95	\$70.30	\$86.64

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$69.32
10th hour	\$69.32
Beyond 10 hours	\$69.32

Saturday

First 8 hours	\$69.32
9th hour	\$69.32
10th hour	\$69.32
Beyond 10 hours	\$69.32

Sunday/Holiday	\$84.69
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Truck Driver - RB1A	Truck Driver	05/10/2024

Classification Description: of all trucks of 8 cubic yard capacity or over semi, tractor trailer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.10	\$70.52	\$86.94

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$69.55
10th hour	\$69.55
Beyond 10 hours	\$69.55

Saturday

First 8 hours	\$69.55
9th hour	\$69.55
10th hour	\$69.55
Beyond 10 hours	\$69.55

Sunday/Holiday	\$84.99
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Truck Driver - RB1B	Truck Driver	05/10/2024

Classification Description: on euclid type equipment, Pole drier, lowboy, doubles, fuel, bus, water

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
				Over 8-hour day/40-hour week
Total Hourly Wage				9th hour \$69.70
				10th hour \$69.70
				Beyond 10 hours \$69.70
				Saturday
				First 8 hours \$69.70
				9th hour \$69.70
				10th hour \$69.70
				Beyond 10 hours \$69.70
				Sunday/Holiday
				\$85.19

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Truck Driver - RB2	Truck Driver	05/10/2024

Classification Description: of all trucks of 8 cubic yd capacity or over

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$44.10	\$48.81	\$49.80

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$56.55
10th hour	\$56.55
Beyond 10 hours	\$56.55

Saturday

First 8 hours	\$56.55
9th hour	\$56.55
10th hour	\$56.55
Beyond 10 hours	\$56.55

Sunday/Holiday	\$56.55
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Truck Driver - RB2A	Truck Driver	05/10/2024

Classification Description: of all trucks of 8 cubic yard capacity or less (except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, euclid type equipment, double bottoms and low boys)

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$44.00	\$48.66	\$49.60

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$56.40
10th hour	\$56.40
Beyond 10 hours	\$56.40

Saturday

First 8 hours	\$56.40
9th hour	\$56.40
10th hour	\$56.40
Beyond 10 hours	\$56.40

Sunday/Holiday	\$56.40
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No

Prevailing Wage Rates for State Funded Projects

Official Rate Schedule

Monroe

Classification Name	Category	Last Updated
Truck Driver - RB2B	Truck Driver	05/10/2024

Classification Description: on euclid type equipment

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$44.25	\$49.04	\$0.00

Overtime Provisions

Over 8-hour day/40-hour week

9th hour	\$56.78
10th hour	\$56.78
Beyond 10 hours	\$56.78

Saturday

First 8 hours	\$56.78
9th hour	\$56.78
10th hour	\$56.78
Beyond 10 hours	\$56.78

Sunday/Holiday	\$56.78
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Four 10-hour days allowed? - Yes

Make Up Day Allowed? - No



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).

PRODUCER Agent: Name Address Phone Number Contact Person	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED Contractor: Name Address Phone Number Contact Person	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: List Company for each coverage	NAIC #
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

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
	GENERAL LIABILITY <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 - COM/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS		List #			COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	List #			WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
	Installation Floater Business Risk		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)

CERTIFICATE HOLDER**CANCELLATION**

Owner: Name Mailing Address <u>NOT</u> Job or Architect	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
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* SAMPLE *

**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. Contractor's daily reports.
- G. Progress photographs.
- H. Requests for Interpretation (RFI) procedures.
- I. 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, or Bluebeam PDF Revu, 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 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.

3.10 PAY REQUEST SUBMITTALS

- 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.

3.11 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.

3.12 SUBMITTAL REVIEW

- A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.
- C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
 1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.

END OF SECTION

Name of Project
Project Address
Client
Client Address
Architect Project #

Date:
Page 1 of 2

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
TOTALS:								

[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.

DATE COPIED TO ARCHITECT _____

ARCHITECT'S PROJECT NUMBER _____

CREW (LIST SUBS, NUMBER OF WORKERS & TRADE CLASSIFICATIONS)

REPORTED BY: _____ **PAGE** _____ **OF** _____ **PAGES**

**SECTION 015000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary Controls: Barriers and enclosures.

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:

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 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and Owner seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.12 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner's personnel.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.13 ADJUSTING

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

3.14 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.

3.15 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 AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of built site elements for alteration purposes.
- B. Selective demolition of building elements for alteration purposes.
- C. Removal of interior concrete slab for sanitary work and electrical work.

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.

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. Site Plan: Indicate:
 - 1. Areas for temporary construction and field offices.
 - 2. Areas for temporary and permanent placement of removed materials.
- C. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
 - 1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
 - 2. Demolition firm qualifications.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.05 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 DEMOLITION

- A. Work included consists of, but is not limited to the following:
 - 1. Selective removal of roofing, decking, structure, ceilings, walls, slabs, floor finishes, joints, masonry, misc. equipment, doors/frames, etc., as detailed or required for new work and/or maintenance repairs.
 - 2. See related mechanical, electrical, and plumbing specifications for other items.
 - 3. Where necessary or specified, saw cut, core drill, etc., certain areas to prevent unnecessary destruction of the existing work, which may otherwise require extra re-building to return to original or acceptable condition as existed before starting new work.
 - 4. Selective demolition of kitchen exhaust hood and related work.
 - 5. Miscellaneous finishes as required for new work.
 - 6. All other work as indicated on the drawings.

- B. Remove other items indicated, for salvage, relocation, and recycling.
 - 1. Refer to Kitchen Equipment Plan and Schedule for equipment that is protected and stored until completion of work.

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 permits from authority having jurisdiction.
 - 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. Protect existing structures and other elements to remain in place and not removed.
 - 1. Design, install, and maintain formwork, falsework, shoring, reshoring, bracing and other temporary systems required to support construction loads and to maintain stability during construction. Engage the services of professional engineer licensed in state of project to design such temporary systems.
 - 2. When it is necessary to cut openings in existing concrete members, slabs, or masonry, locate existing prestressing tendons, reinforcing bars, and embedments, by x-ray, electromagnetic, or ultrasonic testing or by chipping. Do not cut or damage prestressing tendons and minimize cutting of other reinforcing bars and embedments. Notify Architect of existing reinforcing bars and embedments which will be cut by openings.
 - 3. Prevent movement or settlement of adjacent structures.
 - 4. Stop work immediately if adjacent structures appear to be in danger.
 - 5. 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.
- E. 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.
- F. 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.
- G. 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. Door hardware
 2. Other items as noted on the plans. See Kitchen Equipment Plan.

2.04 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and 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.
- H. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

2.05 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
 1. Verify construction and utility arrangements are as indicated.
 2. Report discrepancies to Architect before disturbing existing installation.
 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Separate areas in which demolition is being conducted from areas that remain 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; prevent water and humidity damage.
- D. Remove existing work as indicated and required to accomplish new work.
 1. Remove items indicated on drawings.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.

1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
 2. 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.
 3. Verify that abandoned services serve only abandoned facilities before removal.
 4. 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.
- F. Protect existing work to remain.
1. Prevent movement of structure. Provide shoring and bracing as required.
 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch to match new work.

2.06 PATCHING

- A. Where certain items are called for to be replaced, removed, repaired, altered, etc., and the work involves the removal/destruction of adjacent or related existing items, those damaged items shall be patched, repaired, replaced to their original or better condition as existed before the work is started. A typical example would be regarding new door/frame replacement in same wall. Included as part of the work is any wall damage caused by the removal of door/frame and the installation of the new - including finishes.
- B. Where not shown on drawings, all patching, painting, etc. shall be done with similar materials or an approved substitute to the surrounding areas or as specified in other related Divisions and as recommended by manufacturer. If the Contractor is in question, consult the Architect prior to removal or replacement. All materials shall be carefully removed to avoid damage to other work not scheduled for demolition or for turning over to the Owner.
- C. All patching work shall be uniform in appearance, flush, same texture, etc. with the adjacent existing work. In certain instances, to achieve this, additional adjacent work may be necessary to remove and replace. Typical examples would be:
- D. Any patch painting shall be done in geometric configurations, stopping at logical break points, such as inside or outside corners, at change of materials, or as directed by Owner/Architect.
- E. Neatly saw cut existing walls for installation of new shower panel frames. Grout all surrounding masonry solid in preparation of frame installation.
- F. Where existing tile ceilings are removed during Owners asbestos abatement, and the work will be exposed, patching may be done with matching plaster of 5/8" drywall properly anchored, taped and spackled.
- G. Where existing walls are removed and/or finishes are removed, the substrate material shall be cleaned, ground down, filled, leveled smooth, etc. and made ready for new finishes and/or materials as specified. Flatness tolerance shall be Class 'A' (1/8" deviation in 10'). Leveling shall be done with materials as manufactured by Ardex, Sika, Thoro, or equal.

2.07 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 030100
MAINTENANCE OF CONCRETE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cleaning of existing concrete surfaces as required for new work.
- B. Resurfacing of existing concrete surfaces having spalled areas and other damage.
- C. Leveling of existing concrete surfaces to meet flatness tolerances.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. ASTM F2170, Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- B. ASTM F710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- C. 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: Indicate product standards, physical and chemical characteristics, technical specifications, limitations, maintenance instructions, and general recommendations regarding each material.

1.05 QUALITY ASSURANCE

- A. Cleaner Qualifications: Company specializing in, and with minimum of 3 years of experience in, the type of cleaning specified.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with minimum of 3 years of documented experience.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS

- A. Degreaser:
 - 1. Manufacturers:
 - a. Euclid Chemical Company; Euco Clean and Strip: www.euclidchemical.com/#sle.
 - b. SpecChem, LLC; Orange Peel-Citrus Cleaner: www.specchemllc.com/#sle.
 - c. W. R. Meadows, Inc; 2 Step Ultrite Cleaner: www.wrmeadows.com/#sle.
 - d. Substitutions: See Section 016000 - Product Requirements.
- B. Detergent: Non-ionic detergent.

2.02 CEMENTITIOUS PATCHING AND REPAIR MATERIALS

- A. Manufacturers:
 - 1. ARDEX Engineered Cements: www.ardexamericas.com/#sle.
 - 2. Euclid Chemical Company: www.euclidchemical.com/#sle.
 - 3. W. R. Meadows, Inc: www.wrmeadows.com/#sle.
- B. Cementitious Repair Mortar, Trowel Grade: One- or two-component, factory-mixed, polymer-modified cementitious mortar.
 - 1. Manufacturers:
 - a. ARDEX Engineered Cements; ARDEX Feather Finish: www.ardexamericas.com/#sle.
 - b. Euclid Chemical Company; EucoRepair V100: www.euclidchemical.com/#sle.

- c. W. R. Meadows, Inc; Meadow-Patch T1, Meadow-Patch T2, Meadow-Patch 5, or Meadow-Patch 20: www.wrmeadows.com/#sle.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work.
- B. Beginning of installation means acceptance of substrate.

3.02 PREPARATION

- A. Prepare concrete surfaces to be repaired according to ICRI 310.2R.

3.03 CLEANING EXISTING CONCRETE

- A. Provide enclosures, barricades, and other temporary construction as required to protect adjacent work from damage.
- B. Clean concrete surfaces of dirt or other contamination using the gentlest method that is effective.
 - 1. Try the gentlest method first, then, if not clean enough, use a less gentle method taking care to watch for impending damage.
 - 2. Clean out cracks and voids using same methods.
- C. The following are acceptable cleaning methods, in order from gentlest to less gentle:
 - 1. Water washing using low-pressure, maximum of 100 psi, and, if necessary, brushes with natural or synthetic bristles.
 - 2. Increasing the water washing pressure to maximum of 400 psi.
 - 3. Adding detergent to washing water; with final water rinse to remove residual detergent.
 - 4. Steam-generated low-pressure hot-water washing.
 - 5. Abrasive blasting: Use only abrasive media that have been proven not to damage concrete by testing on mock-up.

3.04 CONCRETE SURFACE REPAIR USING CEMENTITIOUS MATERIALS

- A. Clean concrete surfaces, cracks, and joints of dirt, laitance, corrosion, and other contamination using method(s) specified above and allow to dry.
- B. Apply coating of bonding agent to entire concrete surface to be repaired.
- C. Fill voids with cementitious mortar flush with surface.
- D. Apply repair mortar by steel trowel to a minimum thickness of 1/4 inch (6 mm) over entire surface, terminating at a vertical change in plane on all sides.
- E. Trowel finish to match adjacent concrete surfaces.

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 A775/A775M - Standard Specification for Epoxy-Coated Steel Reinforcing Bars; 2019.
- G. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.
- H. ASTM D3963/D3963M - Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Steel Reinforcing Bars; 2021.
- I. CRSI (DA4) - Manual of Standard Practice; 2009.
- J. 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.
 - 2. Where required, Epoxy coated in accordance with ASTM A775/A775M.
- 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. Do not displace or damage vapor barrier.
- D. 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.
- E. Accommodate placement of formed openings.
- F. 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.
- G. 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.
- H. 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.
- I. 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.
- J. 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.
- K. All reinforced pilasters, masonry door openings, bearing walls under beams, etc. shall have vertical foundation/footing dowels extended into walls for full height reinforcing. (From footing to top of masonry wall).
- L. Dowel all exterior concrete slabs/walks into concrete porches and aprons with #4-bars 24" O.C. unless noted otherwise.
- M. Provide reinforcement in top of interior wall footings centered under door and other openings equivalent in size and number to bottom reinforcement and 4 feet longer than opening.
- N. Minimum reinforcement unless noted otherwise:
 1. Walls 8" or less in thickness: #5 at 12" each way centered in wall.
 2. Walls thicker than 8": #5 at 12" each way centered in face.

- 3. Slabs on grade or slabs on joists: 6" x 6" W 2.1 x W 2.1 W.W.F.
- O. Bond and ground all reinforcement to requirements of Section 260526.

END OF SECTION

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

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete for composite floor construction.
- B. Interior and exterior concrete slabs, concrete walks, concrete curbs, etc.
- C. Concrete foundations and footings.
- D. Concrete ramps.
- E. Joint devices associated with concrete work.
- F. 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: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

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, with Errata (2017).
- 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 - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers; 2020.
- R. ASTM E1155M - Standard Test Method for Determining F(F) Floor Flatness and F(L) Floor Levelness Numbers (Metric); 2014.

- S. ASTM E1643 - Standard Practice for Selection, Design, Installation and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2018a.
- T. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2017.
- U. 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. Samples: Submit samples of underslab vapor retarder to be used.
- E. 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. Underslab and Crawl Space Vapor Retarder:
 - 1. Sheet Material: ASTM E1745, Class A; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. Visqueen polyethylene film min. 6 mil (.006") thick, as manufactured by the Visking Co., or approved substitute.
 - 2. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations.
- B. 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.
 - b. W. R. Meadows, Inc; 1100-Clear: 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 doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout or epoxy as specified.
- G. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches (150 mm). Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Seal around all pipes and other projections piercing vapor barrier. It is suggested that pipe screeds on concrete leveling pads be used for striking off concrete to grade, as no screed stakes will be permitted to puncture vapor barrier. Spot tape in place to prevent movement while installing concrete. Repair damaged vapor retarder before covering.

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.

- J. Equipment Pads - As specified in the Mechanical/Electrical Divisions and noted on drawings, shall be installed in sizes and locations as coordinated with equipment to be supported. Forms shall be set and Contractor shall receive Architect's approval prior to pouring concrete.
- K. Finish floors level and flat, unless otherwise indicated, within the tolerances specified elsewhere.

3.05 SLAB JOINTING

- A. Locate joints as indicated on drawings.
- 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.

3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES

- A. All floors must be free from irregularities, waviness, rough spots and any other defects, with maximum variation of 1/8" in 10' diameter.
- B. Minimum F(F) Floor Flatness and F(L) Floor Levelness Values:
 - 1. Exposed to View and Foot Traffic: F(F) of 20; F(L) of 15, on-grade only.
 - 2. Under Thick-Bed Tile: F(F) of 20; F(L) of 15, on-grade only.
 - 3. Under Carpeting: F(F) of 25; F(L) of 20, on-grade only.
 - 4. Under Thin Resilient Flooring and Thinset Tile: F(F) of 35; F(L) of 25, on-grade only.
- C. Measure F(F) Floor Flatness and F(L) Floor Levelness in accordance with ASTM E1155 (ASTM E1155M), within 48 hours after slab installation; report both composite overall values and local values for each measured section.
- D. Correct the slab surface if composite overall value is less than specified and if local value is less than two-thirds of specified value or less than F(F) 13/F(L) 10.
- E. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.07 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. Screed floors to proper level, float and trowel. After floating to proper level, allow concrete to stand until all water sheen has disappeared. Do finish troweling with steel trowel after concrete is so hard that no mortar accumulates on the trowel and a ringing sound is produced as the trowel is drawn over the surface.
 - 2. Finish exterior walks and platforms with magnesium trowel and give a lightly swirled, non-slip trowel finish.
 - 3.
 - 4. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

3.08 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.

3.09 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.

3.10 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.

3.11 PROTECTION

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

END OF SECTION

**SECTION 040511
MASONRY MORTARING AND GROUTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Mortar for masonry.
- B. Grout for masonry.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 042000 - Unit Masonry: Installation of mortar and grout.

1.03 REFERENCE STANDARDS

- A. ASTM C5 - Standard Specification for Quicklime for Structural Purposes; 2018.
- B. ASTM C91/C91M - Standard Specification for Masonry Cement; 2018.
- C. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2021b.
- D. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.
- E. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2018.
- F. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019.
- G. ASTM C387/C387M - Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar; 2017.
- H. ASTM C404 - Standard Specification for Aggregates for Masonry Grout; 2018.
- I. ASTM C476 - Standard Specification for Grout for Masonry; 2020.
- J. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry; 2020.
- K. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete; 2016.
- L. ASTM C1019 - Standard Test Method for Sampling and Testing Grout for Masonry; 2020.
- M. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Include design mix and indicate whether the Proportion or Property specification of ASTM C270 is to be used. Also include required environmental conditions and admixture limitations.
- C. Reports: Submit reports on mortar indicating compliance of mortar to property requirements of ASTM C270 and test and evaluation reports per ASTM C780.
- D. Reports: Submit reports on grout indicating compliance of component grout materials to requirements of ASTM C476 and test and evaluation reports to requirements of ASTM C1019.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Maintain packaged materials clean, dry, and protected against dampness, freezing, and foreign matter.

1.06 FIELD CONDITIONS

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 MORTAR AND GROUT APPLICATIONS

- A. At Contractor's option, mortar and grout may be field-mixed from packaged dry materials, made from factory premixed dry materials with addition of water only, or ready-mixed.
- B. Mortar Color: Shall be standard gray or if patching/addition, shall be tinted in color and ratio of mix adjusted as required throughout to match existing. Provide Sample for Architect's approval.
- C. Mortar Mix Designs: ASTM C270, Property Specification.
 - 1. Mortar shall comply with ASTM C91 and C-270 in all respects of property and proportion specifications. Below grade and above grade shall be Type "M" or "S" - 1,500 PSI. Masonry cements will be permitted that meet or exceed ASTM C 1329-96. No anti-freeze agents are allowed. Tuckpointing and patching/repair mortars shall be similar in characteristics to what originally used. Prepare sample mix for Architect's approval.
 - 2. Masonry below grade and in contact with earth: Type S.
 - 3. Exterior Masonry Veneer: Type N.
 - 4. Exterior Cavity Walls: Type S mortar with Type N pointing mortar.
 - 5. Interior, Loadbearing Masonry: Type N.
- D. Grout Mix Designs:
 - 1. Grout – For use under bearing plates and anchor bolts shall be construction grade, non-ferrous, non-gaseous, non-shrink, #CG-86 as manufactured by W.R. Meadows, Seal Tite-Elgin, IL (1-847-683-4500). Foundation grout shall comply with ASTM C476 and have minimum strength of 2000 PSI.
 - 2. Bond Beams and Lintels: 3,000 psi (21 MPa) strength at 28 days; 8-10 inches (200-250 mm) slump; provide premixed type in accordance with ASTM C 94/C 94M.

2.02 MATERIALS

- A. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C387/C387M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
- B. Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM C476 with the addition of water only.
- C. Portland Cement: ASTM C150/C150M.
 - 1. Type: Type I - Normal; ASTM C150/C150M.
 - 2. Color: Standard gray.
- D. Masonry Cement: ASTM C91/C91M.
 - 1. Type: Type N; ASTM C91/C91M.
- E. Hydrated Lime: ASTM C207, Type S.
- F. Quicklime: ASTM C5, non-hydraulic type.
- G. Mortar Aggregate: ASTM C144.
- H. Grout Aggregate: ASTM C404.
- I. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.
- J. Water: Clean and potable.

2.03 MORTAR MIXING

- A. Thoroughly mix mortar ingredients using mechanical batch mixer, in accordance with ASTM C270 and in quantities needed for immediate use.
- B. Maintain sand uniformly damp immediately before the mixing process.

- C. Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio; mix in accordance with manufacturer's instructions, uniform in coloration.
- D. Do not use anti-freeze compounds to lower the freezing point of mortar.
- E. If water is lost by evaporation, re-temper only within two hours of mixing.

2.04 GROUT MIXING

- A. Mix grout in accordance with ASTM C94/C94M.
- B. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C476 for fine and coarse grout.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Lay units in full beds of mortar, plumb, true to line and level. Make joints uniform approximately 3/8" and as required to match existing for patching work. Remove units and relay in fresh mortar when shifting or realignment is necessary. Tool all "interior and exterior" joints above grade to slightly concave, smooth, compact surface, using correct tool. Exterior joints below grade shall be trowel pointed. All mortar shall be used within two hours after mixing or after it has begun to set.
- B. Build in all required miscellaneous metal and other items. Set any and all loose lintels and bed structural bearings in mortar to line and level. Install all bolts, lintels, anchors, plates, etc., as shown or required. Provide all expansion and control joints in walls were shown. If not shown, maximum length of wall between control joints to be 20' o.c. Expansion joints shall be installed at all areas were new masonry wall intersects existing wall and maximum 120'-0" o.c. Install Galvanized Metal Joint Stabilizer Anchor #1700 as manufactured by "Masonry Reinforcing Corp. of America 2'-0" o.c. vertically. Reinforcing shall not extend through expansion joints.
- C. Do not lay mortar when temperature of surrounding atmosphere is below 32 degrees F. or is likely to fall below 32 degrees F. in the twenty-four hour period after laying, unless adequate protection is provided. At temperatures below 32 degrees F., provide adequate equipment for heating materials. Protect all finished work against freezing for a period of not less than forty-eight hours by means of enclosures, artificial heat or such other protective methods as may be required.

END OF SECTION

**SECTION 042000
UNIT MASONRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete block.
- B. Clay facing brick.
- C. Mortar and grout.
- D. Reinforcement and anchorage.
- E. Flashings.
- F. Accessories.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 040511 - Masonry Mortaring and Grouting.
- D. Section 055000 - Metal Fabrications: Loose steel lintels.
- E. Section 071113 - Bituminous Dampproofing: Dampproofing parged masonry surfaces.
- F. Section 078400 - Firestopping: Firestopping at penetrations of fire-rated masonry and at top of fire-rated walls.
- G. Section 079200 - Joint Sealants: Sealing control and expansion joints.

1.03 REFERENCE STANDARDS

- A. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement; 2016, with Editorial Revision (2018).
- B. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units; 2016a.
- C. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale); 2021.
- D. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019.
- E. BIA Technical Notes No. 13 - Ceramic Glazed Brick Exterior Walls; 2017.
- F. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.
- G. UL (FRD) - Fire Resistance Directory; Current Edition.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.
- C. Shop Drawings: Indicate pertinent dimensions, materials, anchorage, size and type of fasteners, and accessories for brickwork support system.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.

1.06 MOCK-UPS

- A. Construct a masonry wall as a mock-up panel sized 8 feet (2.4 m) long by 6 feet (1.8 m) high; include mortar, accessories, structural backup, and flashings (with lap joint, corner, and end dam) in mock-up.
- B. Locate where directed.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Concrete Block: Comply with referenced standards and as follows:
 - 1. Size: Standard units with nominal face dimensions of 16 by 8 inches (400 by 200 mm) and nominal depths as indicated on drawings for specific locations.
 - 2. Masonry Units - Standard units with crushed stone aggregate, clean cut corners and true dimensions. Average percentage of moisture in units shall not exceed 40% of their total absorption at time of setting. Units shall have a minimum compressive strength of 1,500 lbs. PSI of gross area at twenty-eight days or when delivered to the job. Provide special blocks for corners, concrete joints, bullnose, piers, control joints, etc., as may be required. Regular blocks will not be permitted for corners, even below grade. To conform to ASTM C-90-94b latest edition and TMS 402/602, Grade N-1. Firewall units shall meet N.C.M.A., equivalent thickness method and supplied in wall thickness noted.

2.02 BRICK UNITS

- A. Facing Brick: "#443 Modular" as manufactured by The Bowerston Shale Company, Hanover Plant, Newark, OH. 43055 and Supplied by Tri County Block & Brick Inc., 1628 US 20 Alternate, Swanton, OH. 43558; (419)826-7060; www.tricountyblock.com

2.03 MORTAR AND GROUT MATERIALS

- A. Mortar and Grout: As specified in Section 040511.

2.04 REINFORCEMENT AND ANCHORAGE

- A. Reinforcing - Horizontal wall reinforcing shall be #9 Ga. type 304 stainless steel trussed wires of not less than 3/16" diameter hook and eyes, manufactured by Hohmann & Barnard, Inc., Haven-Busch Co., or equal. Width shall be within 1" of surface of the walls - brick and block. For block only walls, or block/brick walls installed at same time, use (1) piece 120 Truss-Mesh. For block/brick walls installed separately when damp proofed, parged, and/or rigid insulation is installed, use (2) piece Hohmann & Barnard, Inc, Lox-All adjustable joint reinforcement 170-2X Truss Eye-Wire with #9 Ga. type 304 stainless steel wire truss and anchors 16" x 16" and separate hook loops of 3/16" thick, type 304 stainless steel. Reinforcing to be wider with cavity wall insulation, as the eyes shall project just through insulation so the insulation is held tight to the block with the tails of the brick hooks.
- B. Anchor Bolts - Minimum 1/2" diameter x 12" hooked, or as noted on drawings. Material shall be as approved by the treated wood manufacturer, i.e, stainless steel, epoxy coated steel, etc.
- C. Existing Masonry Anchors - shall be "Heckmann" or equal #133 vertical channel-slot bars anchored with #133-P bridge plate to existing block, 32" O.C. vertically. Install vertical slots 16" O.C. horizontally. Set new brick with keyed corrugated ties, #134, at 16"x16" O.C. Finish to be hot dipped galvanized.

2.05 FLASHINGS

- A. Masonry Base Course & Sill Flashing – Shall be a composite of copper fabric flashing as manufactured by Wasco/York manufacturer series #201. Shall consist of 5 oz. full sheet of copper coated with reinforced glass/asphaltic fabric on both sides - permanently bonded together. No PVC flashing allowed.

2.06 ACCESSORIES

- A. Mortar Net - Thickness of cavity (minimum 0.4" thick) x 10" high x 5' long, as manufactured by Mortar Net USA LTD, Highland, Indiana 46322 (1-800-664-6638), or approved equal.
- B. Weep Tubes - #3600I stainless steel filter and wick as manufactured by Wirebond, 400 Rountree Rd., Charlotte, NC. 28217 or approved Equal

2.07 CLEANING

- A. Shall be as recommended by the masonry supplier, non-toxic, non-hazardous, equal to Sure Klean, as manufactured by Prosoco. Change cleaner type and adjust mix as required to clean

different masonry/stone/concrete/clay materials. Submit type/mix for each masonry material for approval in the shop drawing phase.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive masonry.
- B. Verify that related items provided under other sections are properly sized and located.
- C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.
- B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 PLACING AND BONDING

A. BRICK UNITS

- 1. Lay all units in running bond with all work laid in modular dimensions or as shown on drawings. Pieces shall be kept to a minimum. Note any special brick work - soldier course bands, Rolok sills, etc. Miter sills, headers, corners, etc., to eliminate exposure of unfinished brick surfaces. Where applicable lay all units in bond to match existing.
- 2. Thoroughly wet "high suction" bricks before laying to obtain proper bond. Do not lay dry.
- 3. Brick/Mortar Patching - Existing brick shall be re-worked as noted to allow for new framing to anchor to existing. Also patch/replace brick in existing wall where openings are filled-in. Tooth in all work, remove all cut/non-full size units, and lay up new work to provide a final uniform appearance without evidence of patching. Install horizontal dowels/rebars into existing horizontal reinforcing and other anchors, for proper lateral stability.
- 4. When installing brick over wood studs, anchor with brick ties 16" on center vertically and horizontally. Anchor ties to wood studs (thru sheathing) with 1-1/2" galvanized roofing nails. Bend ties down toward brick to drain and not catch/trap water at bend.
- 5. Brick Replacement - In all areas of existing building where left exposed to view on exterior, the existing brick is to be removed and new added. Provide and install new anchoring system with slotted channels and keyed ties with anchors spaced 16"x16" O.C. Install brick with weeps, flashings, mortar net, asphaltic water proofing, etc. All as specified for new.

B. CONCRETE MASONRY UNITS

- 1. Lay all block units in running bond with all work laid in modular dimensions or as shown on drawings. Pieces shall be kept to a minimum coursing to match existing.
- 2. Provide neatly cut and fitted units around all plumbing pipes, electrical and similar items. Install PVC sleeves around pipes, tiles, etc., below or above grade.
- 3. All walls having full frost foundations shall be toothed into all intersecting walls at every other course, including the interior walls meeting exterior walls, porch foundations, etc. All interior walls bearing on slabs abutting walls bearing on foundations shall not be toothed with masonry. Provide lateral stability using corrugated galvanized wall ties 16" on center vertically, while allowing vertical movement. All intersecting walls bearing on slab shall be toothed similar to all walls bearing on foundations.
- 4. Verify location and size of all steel lintels, jambs, beams and other steel or mechanical work as supplied by others and install same. Cut all openings into existing masonry and rework as noted/required for new grills, ducts, windows, doors, enlarged openings, etc.
- 5. Provide and install bullnose, rounded corner, blocks at all doorways, outside corners, openings, etc., when not covered by drywall and where called for on the drawings. Verify all conditions with types of door frames and steel jambs specified elsewhere.
- 6. Install foundation block working around all vertical reinforcing bars, extending from footings. Grout cores of entire foundation blocks solid.

7. Brick seats shall be constructed with 12"x 8"x 16" grade block, 8"x 8" x 16" semi solid, or all exposed cores shall be filled with grout for solid flat bearing of fabric flashing and brick. Stop brick seats as required so a minimum of (2) courses fall below exterior finish grade.

3.04 WEEPS/CAVITY VENTS

- A. Install weeps in veneer and cavity walls at 24 inches (600 mm) on center horizontally on top of through-wall flashing above shelf angles and lintels and at bottom of walls.

3.05 CAVITY MORTAR CONTROL

- A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.
- B. For cavity walls, build inner wythe ahead of outer wythe to accommodate accessories.
- C. Install cavity mortar control panels continuously throughout full height of exterior masonry cavities during construction of exterior wythe, complying with manufacturer's installation instructions.

3.06 REINFORCEMENT AND ANCHORAGE - GENERAL, SINGLE WYTHER MASONRY, AND CAVITY WALL MASONRY

- A. Reinforce all masonry walls below and above grade with trussed wires at every 2nd course (16") and shall be so laid out that one layer shall come in the course above lintels. Longitudinal wire shall be lapped not less than 12" at corners, cut inside rod and bend to proper angle. At each doorway reinforce first two courses above opening and reinforcing extending not less than 3" beyond each jamb. Where concrete block is to be waterproofed on exterior and before installing brick, install (2) piece type horizontal reinforcing, being sure to install full horizontal reinforcing in block as well as brick with "U" type wire anchors 16"x 16" on center.
- B. Set all hooked anchors for wood framing/roof plates - shall be minimum 4'-0" on center; 2'-0" from corner; 1'-0" from edges of all doors/openings, etc. Grout cores of block solid.

3.07 MASONRY FLASHINGS

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
- B. Base Course Flashing - Shall be installed in strict accordance with manufacturer's specifications and recommendations and detailed drawings. Fabric must be laid in fresh mortar bed - above and below fabric without voids. Fabric shall be lapped at least 6" at all end joints with a liberal coating of bonding agent. Ample mastic shall be used at all turn-ups and at all locations to thoroughly bond the fabric to the brick. Install at brick seat, above door and window lintels, under windowsills approximately 8", 12" above projected rooflines, and other condensation ledges in areas as recommended by the manufacturer and shown on the drawings. Top edge of fabric shall be laid into block coursing a minimum of 16" above weep ledge. On wood framing, install under wood sill plate and lap with sheathing vapor barrier. At all discontinuous ends, such as at the ends of windows, beams, doors, etc., form end dams by turning up fabric to prevent water from spilling over ends. Angle cut ends at 30° ± slope to reduce exposed edge of dam in vertical exposed face of masonry. The fabric shall be fully supported on bottom side without dips and laid to drain water outward. Fill all voids/cavities below flashing with mortar. Weeps shall be installed on top of flashing 24" o.c. and at all ends.

3.08 INSULATION

- A. See Division #7 for masonry insulation. Contractor shall notify and receive Architect's approval of having insulation full height in walls before top of wall is capped, bond beam is placed, or other features are installed where blocked from view. Protect tops of all filled walls with poly covering from elements of the weather. All exterior block walls receive foam-in-place insulation.

3.09 LINTELS

- A. Install all structural steel hooked bearing plates, joist stirrups, etc. Under all steel beam and lintel bearings, grout blocks solid for a minimum of three courses below and 24" back from bearing edge.

- B. Install all steel lintels as noted on drawings.
- C. Provide and install any miscellaneous pre-cast lintels for minor items (mechanical and electrical), if no steel lintel is specified. Lintels shall be constructed of 2,500# concrete, manufactured from same materials and texture as wall to comply with reinforcing standards as established by the Concrete Products Association of Michigan..

3.10 BUILT-IN WORK

- A. As work progresses, install built-in metal door frames and glazed frames and other items to be built into the work and furnished under other sections.
- B. Install built-in items plumb, level, and true to line.
- C. Bed anchors of metal door and glazed frames in adjacent mortar joints. Fill frame voids solid with grout.

3.11 PARGING

- A. Seal all blocks below grade on exterior side with 3/8" parge coating of portland cement mortar. Below grade shall in addition be sealed with asphaltic waterproofing compound. No voids or pores shall be visible. Above grade block in cavity walls shall be sealed as a vapor barrier with asphaltic damproofing without parge coating. (See Division #7).

3.12 CLEANING

- A. Clean brick in strict conformance with cleaner manufacturer's specifications and recommendations. Leave surfaces free from mortar and other stains at completion of work. Use mild cleaning solution to wash down brickwork and excess mortar. Install cleaner/wash a sample area for Owner/Architect approval before proceeding with remaining work. Do not permit cleaner to come in contact with metal or aluminum. Wire brush as required to assist cleaning. Thoroughly rinse brick with water after washing.

END OF SECTION

**SECTION 051200
STRUCTURAL STEEL FRAMING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural steel support members and struts.
- B. Lintels

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 053100 - Steel Decking
- D. Section 055000 - Metal Fabrications: Steel fabrications affecting structural steel work.

1.03 REFERENCE STANDARDS

- A. AISC (MAN) - Steel Construction Manual; 2017.
- B. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges; 2016.
- C. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
- D. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2020.
- E. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- F. ASTM A242/A242M - Standard Specification for High-Strength Low-Alloy Structural Steel; 2013 (Reapproved 2018).
- G. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2021.
- H. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2021a.
- I. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts; 2015.
- J. ASTM A563M - Standard Specification for Carbon and Alloy Steel Nuts (Metric); 2007 (Reapproved 2013).
- K. ASTM A992/A992M - Standard Specification for Structural Steel Shapes; 2020.
- L. ASTM F436/F436M - Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2019.
- M. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2019, with Editorial Revision (2020).
- N. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- O. RCSC (HSBOLT) - Specification for Structural Joints Using High-Strength Bolts; Research Council on Structural Connections; 2014, with Errata (2015).
- P. SSPC-SP 3 - Power Tool Cleaning; 2024.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings:
 - 1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.

2. Connections not detailed.
 3. Indicate cambers and loads.
 4. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.
- C. Manufacturer's Mill Certificate: Certify that products meet or exceed specified requirements.
- D. Steel fabricator to design beam connections for reactions indicated or where not indicated, one half of total uniform load capacity of a simple beam for span given as specified in latest AISC Manual of steel construction. Design connections of bracing members for member forces indicated, or where not indicated, for the full tensile and compressive capacities of the bracing member.
- E. Members shall be of dimensions and weights shown on drawings. Substitutions of other sections may be made, subject to the Architect's approval and provided that no change is made to architectural design and that the substituted sections are at least equal to the original design in strength and stability.

1.05 QUALITY ASSURANCE

- A. Fabricate structural steel members in accordance with AISC (MAN) "Steel Construction Manual."
- B. Structural steel members designated as architecturally-exposed structural steel (AESS) to also comply with Section 051213.
- C. Maintain one copy of each document on site.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Structural steel shall conform to the latest edition of Specifications for Structural Steel Buildings allowable stress and plastic design, AISC; allowable stress design of single-angle members, AISC; structural joints using ASTM A325 or A 490 bolts, RCSC; standard code of practice, AISC.
- B. Steel Angles and Plates: ASTM A36/A36M.
- C. Steel W Shapes and Tees: ASTM A992/A992M.
- D. Rolled Steel Structural Shapes: ASTM A992/A992M.
- E. Steel Shapes, Plates, and Bars: ASTM A242/A242M high-strength, corrosion-resistant structural steel.
- F. Cold-Formed Structural Tubing: ASTM A500/A500M, Grade B.
- G. Pipe: ASTM A53/A53M, Grade B, Type E or S.
- H. Structural Bolts and Nuts: Carbon steel, ASTM A307, Grade A and galvanized in compliance with ASTM A153/A153M Class C.
- I. High-Strength Structural Bolts, Nuts, and Washers: ASTM A325 or ASTM F3125/F3125M, Type 1, with matching compatible ASTM A563 or ASTM A563M nuts and ASTM F436/F436M washers.
- J. Anchor Bolts - ASTM A307 or A36
- K. Furnish angle lintels for new doors, windows, miscellaneous openings, mechanical equipment and duct openings as noted on drawings or required to complete this work. Steel angles, unless noted otherwise, to be minimum (2) – 3 ½" x 3 ½" x ¼" angles for 4' spans and (2) 5 ½" x 3 ½" x ¼" angles for 8' spans in 8" thick walls and (3) of same angles in 12" thick walls. For roof openings, unless noted otherwise, provide and install 'H' frame of 3 ½" x 3 ½" x ¼" angle spanning between existing structural members.
- L. Furnish adequate bearing plates with anchors for all steel beams bearing on masonry. Minimum of 6" bearing of all lintels, beams, etc., on masonry; 4" minimum bearing on steel, unless noted otherwise. Provide all brick angle lintels for all windows, doors and miscellaneous openings.

- M. Provide all hangers, attachments, etc., in connection with lintels and other structural steel.
- N. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
 - 1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch (13.7 MPa).
 - 2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch (48 MPa).

2.02 FABRICATION

- A. Fabricate structural steel in accordance with current edition of Specifications adopted by the American Institute of Steel Construction. Do all punching and drilling of steel required for attachment of other materials thereto.
- B. Provide all hangers, attachments, etc., in connection with lintels and other structural steel.
- C. Shop fabricate to greatest extent possible.

2.03 FINISH

- A. Prepare structural component surfaces in accordance with SSPC-SP 3.
- B. All steel beams, miscellaneous steel, etc.(other than fireproofed, field welded, or high strength bolted.), shall have one heavy coat of rust inhibitive paint applied in the shop. It shall be clean of all rust, scale, sand and other foreign matter before painting. Patch paint in the field in case of damage due to welding, installation, etc. Note: any concealed lintels/beams built into masonry or concrete, shall be field painted with (2) coats of alkylid paint before installation.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

3.02 ERECTION

- A. Erect structural steel in compliance with AISC 303.
- B. Allow for erection loads and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- C. Connections, except as otherwise noted or shown, shall be riveted or welded; field connections may be bolted, unless otherwise noted. Bolted field connections for main members only shall be made with 3/4" ASTM A325 high strength bolts and shall conform to the "Specifications for Structural Joints, using ASTM A325 or A490 Bolts". All other connections may be made with 3/4" standard machine bolts meeting ASTM A307. Shop connections may be riveted, welded or bolted with high strength bolts. Beams shall frame into the side of columns, unless shown otherwise on plans.
- D. Use carbon steel bolts only for temporary bracing during construction, unless otherwise specifically permitted on drawings. Install high-strength bolts in accordance with RCSC (HSBOLT) "Specification for Structural Joints Using High-Strength Bolts".
- E. Grout solidly between column plates and bearing surfaces, complying with manufacturer's instructions for non-shrink grout. Trowel grouted surfaces smooth, sloping neatly to 45 degrees.

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
- C. Section 032000 - Concrete Reinforcing.
- D. Section 033000 - Cast-in-Place Concrete: Concrete topping over metal deck.

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; 2023.
- B. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020.
- C. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel; 2018.
- D. ICC-ES AC43 - Acceptance Criteria for Steel Deck Roof and Floor Systems; 2022.
- E. ICC-ES AC70 - Acceptance Criteria for Fasteners Power Driven into Concrete, Steel and Masonry Elements; 2016.
- F. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.
- G. 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. On steel supports provide minimum 1-1/2 inch (38 mm) bearing.
- D. 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.
- E. Weld deck in accordance with AWS D1.3/D1.3M.
- F. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up primer.

END OF SECTION

**SECTION 054000
COLD-FORMED METAL FRAMING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interior framing for added ceiling edge support at Raisinville Elementary School

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members; 2016, with Supplement (2018).
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with work of other sections that is to be installed in or adjacent to the metal framing system, including but not limited to structural anchors, cladding anchors, utilities, insulation, and fire stopping.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on standard framing members; describe materials and finish, product criteria, limitations.
- C. Product Data: Provide manufacturer's data on factory-made framing connectors, showing compliance with requirements.
- D. Shop Drawings: Indicate component details, framed openings, bearing, anchorage, loading, welds, and type and location of fasteners, and accessories or items required of related work.
 - 1. Indicate stud and ceiling joist layout.
 - 2. Describe method for securing studs to tracks and for bolted framing connections.
 - 3. Design data:
 - a. Shop drawings signed and sealed by a professional structural engineer.
 - 4. Calculations for loadings and stresses of specially fabricated framing, signed and sealed by a professional structural engineer.
 - 5. Details and calculations for factory-made framing connectors, signed and sealed by a professional structural engineer.

1.06 QUALITY ASSURANCE

- A. Designer Qualifications: Design framing system 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.
- B. Manufacturer Qualifications: Company specializing in manufacturing the types of products specified in this section, and with minimum three years of documented experience.
- C. Manufacturer Qualifications: Member of Steel Stud Manufacturers Association (SSMA): www.ssma.com/#sle.
- D. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Metal Framing:
 - 1. CEMCO: www.cemcosteel.com/#sle.
 - 2. ClarkDietrich: www.clarkdietrich.com/#sle.
 - 3. Marino: www.marinoware.com/#sle.
- B. Framing Connectors and Accessories:
 - 1. Same manufacturer as metal framing.
 - 2. Substitutions: See Section 016000 - Product Requirements.

2.02 FRAMING SYSTEM

- A. Provide primary and secondary framing members, bridging, bracing, plates, gussets, clips, fittings, reinforcement, and fastenings as required to provide a complete framing system.
- B. Design Requirements: Provide completed framing system having the following characteristics:
 - 1. Design: Calculate structural characteristics of cold-formed steel framing members according to AISI S100.
 - 2. Structural Performance: Design, engineer, fabricate, and erect to withstand specified design loads for project conditions within required limits.
 - 3. Design Loads: in accordance with applicable codes and as indicated on drawings. .
 - 4. Able to tolerate movement of components without damage, failure of joint seals, undue stress on fasteners, or other detrimental effects when subject to seasonal or cyclic day/night temperature ranges.
 - 5. Able to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.
- C. Shop fabricate framing system to the greatest extent possible.
- D. Deliver to project site in largest practical sections.

2.03 FRAMING MATERIALS

- A. Header: Engineered one-member or two-member assembly, with wide flanges, designed to replace conventional box or nested header framing at openings.
 - 1. Jamb Mounting Clips: Manufacturer's standard.
- B. Framing Connectors: Factory-made, formed steel sheet.
 - 1. Material: ASTM A653/A653M SS Grade 33 and 40 (minimum), with G90/Z275 hot dipped galvanized coating for base metal thickness less than 10 gauge, 0.1345 inch (3.42 mm), and factory punched holes and slots.
 - 2. Structural Performance: Maintain load and movement capacity required by applicable code, when evaluated in accordance with AISI S100.
 - 3. Movement Connections: Provide mechanical anchorage devices that accommodate movement using slotted holes, shouldered screws or screws and anti-friction or stepped bushings, while maintaining structural performance of framing. Provide movement connections where indicated on drawings.
 - a. Where continuous studs bypass elevated floor slab, connect stud to slab in manner allowing vertical and horizontal movement of slab without affecting studs; allow for minimum movement of 1/2 inch (13 mm).
 - b. Where top of stud wall terminates below structural floor or roof, connect studs to structure in manner allowing vertical and horizontal movement of slab without affecting studs; allow for minimum movement of 1/2 inch (13 mm).
 - 4. Fixed Connections: Provide non-movement connections for tie-down to foundation, floor-to-floor tie-down, roof-to-wall tie-down, joist hangers, gusset plates, and stiffeners.
 - 5. Wall Stud Bridging Connections: Provide mechanical load-transferring devices that accommodate wind load torsion and weak axis buckling induced by axial compression loads. Provide bridging connections as required.

2.04 FASTENERS

- A. Self-Drilling, Self-Tapping Screws, Bolts, Nuts and Washers: Hot dip galvanized per ASTM A153/A153M.
- B. Anchorage Devices: Powder actuated.

2.05 ACCESSORIES

- A. Supplementary framing, Bracing, Furring, Bridging, backer plates, solid blocking, Clips: Formed sheet steel in manufacturer's thickness and configuration determined for conditions encountered; finish to match framing components.
- B. Sill Sealer Gasket: Closed-cell neoprene foam, 1/4 inch (6 mm) thick, selected from manufacturer's standard widths to match width of bottom track or rim track members as required.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, conditions, and abutting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 TOLERANCES

- A. Install cold-formed steel framing level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 ft. (1:960) and as follows:
 - 1. Space individual framing members no more than plus or minus 1/8 inch (3 mm) from plan location. Cumulative error are not to exceed minimum fastening requirements of sheathing or other finishing materials.

3.03 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that cold-formed steel framing is without damage or deterioration at time of Substantial Completion.

END OF SECTION

**SECTION 061000
ROUGH CARPENTRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Roofing nailers.
- B. Preservative treated wood materials.
- C. Fire retardant treated wood materials.
- D. Concealed wood blocking, nailers, and supports.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 033000 - Cast-in-Place Concrete: Setting anchors in concrete.

1.03 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- B. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 2003 (Reapproved 2017).
- C. ASTM D3498 - Standard Specification for Adhesives for Field-Gluing Wood Structural Panels (Plywood or Oriented Strand Board) to Wood Based Floor System Framing; 2019a.
- D. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2021a.
- E. AWPA U1 - Use Category System: User Specification for Treated Wood; 2018.
- F. PS 20 - American Softwood Lumber Standard; 2020.

1.04 SUBMITTALS

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

1.05 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
 - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER

- A. Sizes: Nominal sizes as indicated on drawings, S4S.
- B. Moisture Content: S-dry or MC19.

- C. Rough lumber shall be grade #2 or better, dressed four sides, of spruce, pine, douglas fir, or equal, in shapes and sizes as required.
- D. Structural lumber shall be grade #2 or better kiln dried, 1,000 psi bending, unless noted elsewhere (spruce/pine/fir).
- E. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 - 1. Lumber: S4S, No. 2 or Standard Grade.
 - 2. Boards: Standard or No. 3.

2.03 CONSTRUCTION PANELS

- A. General Plywood shall be CDX Grade, with exterior glue - such as 1/2" thick shall be 4 ply.

2.04 ACCESSORIES

- A. Fasteners and Anchors:
 - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
 - 2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.
 - 3. Anchors: Toggle bolt type for anchorage to hollow masonry.
 - 4. Install all work with nails, spikes, screws, joist hangers and similar items of approved sizes and types. Exterior framing anchors to be galvanized.
- B. Construction Adhesives: Adhesives complying with ASTM C557 or ASTM D3498.

2.05 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWWA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
 - 1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
 - 2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWWA standards.
- B. Fire Retardant Treatment:
 - 1. Interior Type A: AWWA U1, Use Category UCFA, Commodity Specification H, low temperature (low hygroscopic) type, chemically treated and pressure impregnated; capable of providing a maximum flame spread index of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes. Each piece of lumber and plywood shall be U.L. labeled. Install per code requirements.
 - a. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
 - b. Treat rough carpentry items as indicated .
 - c. Do not use treated wood in applications exposed to weather or where the wood may become wet.
- C. Preservative Treatment:
 - 1. Preservative Pressure Treatment of Lumber Above Grade: AWWA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - b. Treat lumber exposed to weather.
 - c. Treat lumber in contact with roofing, flashing, or waterproofing.
 - d. Treat lumber in contact with masonry or concrete.
 - 2. Preservative Pressure Treatment of Plywood Above Grade: AWWA U1, Use Category UC2 and UC3B, Commodity Specification F using waterborne preservative.
 - a. Kiln dry plywood after treatment to maximum moisture content of 19 percent.

3. Preservative Pressure Treatment of Lumber in Contact with Soil: AWPAC U1, Use Category UC4A, 1,200 psi construction grade, Commodity Specification A using waterborne preservative.
 - a. Preservative for Field Application to Cut Surfaces: As recommended by manufacturer of factory treatment chemicals for brush-application in the field.
 - b. Restrictions: Do not use lumber or plywood treated with chromated copper arsenate (CCA) in exposed exterior applications subject to leaching.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.
- C. Install all temporary guardrails, walks, forms, bracing, shoring, etc., as required for the work or safety.
- D. Install any necessary temporary enclosures for door openings, barricades, etc., to close off work for security or moisture/temperature protection.
- E. See Concrete Division #3 for formwork.
- F. Unless otherwise noted, install all nailers or plates on beams or masonry walls per Michigan Building Code and secure with 1/2" diameter bolts, spaced 4'-0" on center with (2) anchors minimum per piece and not closer than 4" or greater than 12" from each end. Provide and install nuts/washers/plates of proper size per code.
- G. Provide all necessary framing around ductwork, registers, vents, etc. Included are nailers and blocking for drywall, cabinets, grab bars, handrails, toilet partitions, window drapes (2x12 each side of window), etc.
- H. Provide and install fire blocking in walls at 10'-0" height, at ceiling lines, behind soffits, around modular tub/shower units, etc., as noted or required by code. Draft stops shall consist of 1/2" CDX plywood.

3.02 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to authorities having jurisdiction may be used in lieu of solid wood blocking.
- C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- D. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- E. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

3.03 ROOF-RELATED CARPENTRY

- A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

END OF SECTION

**SECTION 071113
BITUMINOUS DAMPPROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Bituminous dampproofing.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. ASTM D1187/D1187M - Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal; 1997 (Reapproved 2018).
- B. ASTM D1227/D1227M - Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing; 2019.
- C. NRCA (WM) - The NRCA Waterproofing Manual; 2005.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide properties of primer, bitumen, and mastics.
- C. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.05 FIELD CONDITIONS

- A. Maintain ambient temperatures above 40 degrees F (5 degrees C) for 24 hours before and during application until dampproofing has cured.

PART 2 PRODUCTS

2.01 BITUMINOUS DAMPPROOFING

- A. Bituminous Dampproofing: Cold-applied water-based emulsion; asphalt with mineral colloid or chemical emulsifying agent; with or without fiber reinforcement; asbestos-free; suitable for application on vertical and horizontal surfaces.
 - 1. Asphalt-Base Emulsion for Metal Protective Coating: ASTM D1187/D1187M, Type I - Continuous water exposure within few days after drying or Type II - Continuous weather exposure after drying.
 - 2. Emulsified Asphalt for Roofing Protective Coating: ASTM D1227/D1227M, Type II, Class 1 - Mineral colloid emulsifying agents with non-asbestos fibers.
 - 3. VOC Content: Not more than permitted by local, State, and federal regulations.
 - 4. Applied Thickness: 1/16 inch (1.5 mm), minimum, wet film.
 - 5. Products:
 - a. W. R. Meadows, Inc; Sealmastic Emulsion Type II (brush/spray-grade): www.wrmeadows.com/#sle.
 - b. Sonneborn; Hydrocide 700B

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions are acceptable prior to starting this work.
- B. Verify substrate surfaces are durable, free of matter detrimental to adhesion or application of dampproofing system.
- C. Verify that items penetrating surfaces to receive dampproofing are securely installed.

3.02 PREPARATION

- A. Protect adjacent surfaces not designated to receive dampproofing.
- B. Clean and prepare surfaces to receive dampproofing in accordance with manufacturer's instructions.
- C. Do not apply dampproofing to surfaces unacceptable to manufacturer.
- D. Apply mastic to seal penetrations, small cracks, or minor honeycombs in substrate.

3.03 APPLICATION

- A. Install per manufacturer's recommendations on all exterior side of block foundations below grade and on exterior side of exterior block walls from top of block at roof to brick seat (between block and brick walls). Masonry surface to receive dampproofing shall be dry and clean of all mud, dirt and loose mortar. Spray or brush on dampproofing for 100% coverage with no voids (total 1/8" minimum thickness). The spray system shall also be back-rolled. A minimum of (2) coats shall be applied to achieve the required thickness – thoroughly dried between coats.
- B. Asphaltic Coating may be installed in partial heights as block wall is installed. Dur-O-Wall reinforcing will protrude from block and care shall be taken to coat around all wires entering into block. Brick installation to follow.
- C. Perform this work in accordance with manufacturer's instructions and NRCA (WM) applicable requirements.
- D. Prime surfaces in accordance with manufacturer's instructions and NRCA (WM) applicable requirements.
- E. Apply bitumen with mop.
- F. Seal items watertight with mastic, that project through dampproofing surface.

END OF SECTION

**SECTION 072100
THERMAL INSULATION**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Board insulation and integral vapor retarder at cavity wall construction, perimeter foundation wall, and underside of floor slabs.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 075323 - EPDM Thermoset Single-Ply Roofing: Installation requirements for board insulation over low slope roof deck.

1.03 REFERENCE STANDARDS

- A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2019.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2021a.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

1.05 FIELD CONDITIONS

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

PART 2 PRODUCTS

2.01 APPLICATIONS

- A. Insulation Under Concrete Slabs: Extruded polystyrene (XPS) board.
- B. Insulation at Perimeter of Foundation: Extruded polystyrene (XPS) board.
- C. Insulation Inside Masonry Cavity Walls: Extruded polystyrene (XPS) board.

2.02 FOAM BOARD INSULATION MATERIALS

- A. Foundations and Under Concrete Slabs: Extruded Polystyrene (XPS) Board Insulation: Complies with ASTM C578 with either natural skin or cut cell surfaces.
 - 1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
 - 2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
 - 3. Type and Thermal Resistance, R-value (RSI-value): Type IV, 5.0 (0.88), minimum, per 1 inch (25.4 mm) thickness at 75 degrees F (24 degrees C) mean temperature.
 - 4. Board Thickness: 2"
 - 5. Products:
 - a. Owens Corning Corporation; FOAMULAR Extruded Polystyrene (XPS) Insulation: www.ocbuildingspec.com/#sle.
 - b. Substitutions: See Section 016000 - Product Requirements.
- B. Masonry Cavity Wall: Extruded Polystyrene (XPS) Cavity Wall Insulation Board: Complies with ASTM C578, and manufactured using carbon black technology.
 - 1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
 - 2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
 - 3. Type and Thermal Resistance, R-value (RSI-value): Type IV, 5.6 (0.98), minimum, per 1 inch (25.4 mm) thickness at 75 degrees F (24 degrees C) mean temperature.
 - 4. Board Size: 15-3/4 inch by 96 inch (400 mm by 2440 mm).

5. Board Thickness: 1-3/4 inch (44.5 mm).
6. Board Edges: Square.
7. Include matching joint tape.
8. Products:
 - a. DuPont de Nemours, Inc; Styrofoam Brand Cavitymate Ultra:
building.dupont.com/#sle.
 - b. Owens Corning Corporation; FOAMULAR Extruded Polystyrene (XPS) Insulation:
www.ocbuildingspec.com/#sle.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER

- A. Install all insulation as recommended by the manufacturer without misses.
- B. Adhere a 6 inches (152 mm) wide strip of polyethylene sheet over construction, control, and expansion joints with double beads of adhesive each side of joint.
 1. Tape seal joints.
 2. Extend sheet full height of joint.
- C. Install boards horizontally on foundation perimeter.
- D. Extend boards over expansion joints, unbonded to foundation on one side of joint.
- E. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
- F. Below slab insulation shall be installed prior to compacting floor sub-base. Shall be installed as part of formwork if concrete walls/foundation or laid up tight to masonry walls without any air space or gaps. Temporarily secure to wall with approved adhesive or anchors until floor sub-base. Off-set of insulation to clear obstructions or masonry jogs shall be properly lapped with full thickness of material.

3.03 BOARD INSTALLATION AT CAVITY WALLS

- A. Install all insulation as recommended by the manufacturer without misses.
- B. Adhere a 6 inches (152 mm) wide strip of polyethylene sheet over expansion joints with double beads of adhesive each side of joint.
 1. Tape seal joints between sheets.
 2. Extend sheet full height of joint.
- C. Apply adhesive to back of boards:
- D. Install boards to fit snugly between wall ties.
- E. Install boards horizontally on walls.
 1. Place boards to maximize adhesive contact.
 2. Install in running bond pattern.
 3. Butt edges and ends tightly to adjacent boards and protrusions.
- F. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
- G. Place 6 inches (152 mm) wide polyethylene sheet at perimeter of wall openings, from adhesive vapor retarder bed to window and door frames, and tape seal in place to ensure continuity of vapor retarder and air seal.

3.04 BOARD INSTALLATION UNDER CONCRETE SLABS

- A. Place insulation under slabs on grade after base for slab has been compacted.
- B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

- C. Prevent insulation from being displaced or damaged while placing vapor retarder and placing slab.

3.05 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for additional requirements.
- B. Contractor to call for and receive Architect's inspection/approval of all insulation before covering up.

END OF SECTION

SECTION 075323
EPDM THERMOSET SINGLE-PLY ROOFING - CARLISLE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Adhered roof system with ethylene propylene diene monomer (EPDM) roofing membrane.
- B. Insulation, flat and tapered.
- C. Flashings.
- D. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015.
- B. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; 2016, with Editorial Revision (2022).
- C. NRCA (RM) - The NRCA Roofing Manual; 2025.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's written information listed below.
 - 1. Product data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- C. Shop drawings must be submitted to Carlisle by the Carlisle Authorized Roofing Applicator along with a completely executed Notice of Award (Page 1 of Carlisle's Request for Warranty form) for approval. Approved shop drawings are required for inspection of the roof and on projects where on-site technical assistance is requested.
- D. Shop Drawings must include:
 - 1. Outline of roof and size
 - 2. Deck type (for multiple deck types)
 - 3. Location and type of all penetrations
 - 4. Perimeter and penetration details
 - 5. Key plan (on multiple roof areas) with roof heights indicated
 - 6. Sure-Seal Fastener type, length and maximum spacing or Fast Adhesive ribbon spacing (for insulation securement)
- E. Along with the project submittals (shop drawing and Request for Warranty), the roofing contractor must include pullout test results when the results are below the requirements identified in the Table included in Design Reference DR-06-11 "Withdrawal Resistance Criteria".
- F. Upon completion of half the project, the contractor shall notify Carlisle and pay any fee to make "mid-way inspection" to ensure work is being installed per the manufacturer's standard details. Note: no more than 50% of the contact amount will be paid to the Contractor prior to this inspection being made by the roofing manufacturer.
- G. After project completion, the Contractor must be submitted a Notice of Completion, (Page 2 of the Carlisle Request for warranty form) to Carlisle to schedule the necessary inspection and acceptance of the project prior to issuance of the Carlisle warranty. An inspection shall be made by a representative of Carlisle SynTec Systems in order to ascertain that the Roofing System has been installed according to Carlisle SynTec System's published specifications and

details.

- H. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- I. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and other supplementary instructions.
- J. Warranty:
 - 1. Upon approval of the installation, Carlisle shall submit a watertight full system guarantee for twenty (20) years against defects due to material or workmanship. This shall not be construed to cover misuse or abuse. The warranty shall include wind speed (Maximum Peak Gusts) up to 72 mph. Also, a manufacturer's guarantee shall be submitted for twenty (20) years on the membrane materials.
 - 2. Total System Warranty - Contractor shall state the amounts on the bid proposal form to provide and install only materials from among those supplied or approved by Carlisle for the total roofing system. All components of the entire roofing system are to be products of the manufacturer or accepted by the manufacturer as compatible. Upon approval of the installation, the manufacturer shall submit their standard full systems guarantee for (20) years against defects due to material or workmanship and their standard guarantee on membrane material - both by manufacturer. This shall not be construed to cover misuse or abuse. The Contractor shall list the manufacturer's name of the roofing system bid on the total system bid proposal form.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum twenty (20) years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of this section:
 - 1. With minimum five years documented experience.
 - 2. Franchised Installer - Roofing Contractor shall be franchised installers by the manufacturer of the roofing system.
 - 3. Experience - Roofing Contractor shall have been in the roofing business for the last five, (5) years as Roofing Installers. Contractor shall have a minimum of 5 years' experience and have installed a minimum of five, (5) re-roofs similar to this project size or larger using the materials and manufacturers as herein specified. Written verification shall be submitted with bid proposal, stating references and jobs similar in scope of this project.
 - 4. Location - Roofing Contractors shall be located within approximately a fifty (50) mile radius of the City of Monroe, Michigan.
 - 5. Worker's Qualifications:
 - a. Workmanship shall be of the highest standard throughout and in accordance with the latest and best standard practices of the trade. Only skilled workmen in the task assigned them shall be employed.
 - b. A Roofer shall have a minimum of two years' experience installing the material herein specified, or certification from the roofing manufacturer or from a Federal or Michigan State approved program, or trade school, or certification from a local trade union having the classification of a journeyman.
 - c. A Roofer's helper shall be anyone performing roofing related work (excluding the installation of roofing materials), such as tear-offs, carrying materials, mixing materials, cleaning up, etc.
 - d. An apprentice Roofer is one who is registered in a bonafide program as registered with the U.S. or State of Michigan Department of Labor.
 - e. The proportion of apprentices and helpers shall not exceed (1) helper and/or (1) apprentice to every (3) Roofers. An apprentice may do the work of a helper.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Protect products in weather protected environment, clear of ground and moisture.

- C. Protect foam insulation from direct exposure to sunlight.
- D. Keep Safety Data Sheets (SDS) at the project site at all times during transportation, storage, and installation of materials.
- E. Comply with requirements from Owner to prevent overloading or disturbance of the structure when loading materials onto the roof.

1.07 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
 - 1. Warranty Term: 20 years.
 - 2. For repair and replacement include costs of both material and labor in warranty.
 - 3. Exceptions NOT Permitted:
 - a. Damage due to roof traffic.
 - b. Damage due to wind of speed greater than 56 mph (90 km/h) but less than 90 mph (145 km/h).

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Carlisle SynTec: www.carlisle-syntec.com/#sle.
- B. The following roofing system manufacturers, in addition to Carlisle, have submitted written documentation of products, guarantee, testing, etc., and are approved by the Architect.
 - 1. Firestone "Rubbergard" Fully Adhered 60 Mil
- C. Substitutions: See Section 016000 - Product Requirements.

2.02 ROOFING APPLICATIONS

- A. Furnish and install Bonded, Sure Seal, Design "A" Rubber Membrane Roofing System indicated on drawings and specified herein.
- B. Roofing Assembly Performance Requirements and Design Criteria:

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane:
 - 1. Material: Ethylene propylene diene monomer (EPDM); ASTM D4637/D4637M, Type I (non-reinforced).
 - 2. Thickness: 60 mil, 0.060 inch (1.5 mm), minimum.
 - 3. Sheet Width: Factory fabricated into largest sheets possible.
 - 4. Color: Black.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Flexible Flashing Material: Same material as membrane.
- D. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.

2.04 INSULATION

- A. Standard insulation on metal deck shall be nominal 2.6" thickness, with a minimum aged "R" Value of 15.0, installed in two layers with staggered seams as noted on plans, (total R-30.0) when tested per ASTM C1289-11A effective January 1, 2014, of closed cell isocyanurate core with fibrous mat facings, equal to Carlisle InsulBase Polyisocyanurate, Grade 3, (25 psi.) insulation or other F.M. approved insulations, as manufactured by Carlisle, or equal as approved by the roofing membrane manufacturer. Adjust nailer thickness accordingly. Before ordering, submit approved letter from insulation manufacturer to the Architect that this insulation is approved by the roofing membrane system manufacturer (Carlisle), and will be included in their full systems twenty (20) year warranty.

- B. Tapered Insulation - Shall be Polyisocyanurate tapered board - minimum of 1/2" thick Grade 3, (25 psi). Taper to be minimum 1/8" per foot slope or as noted on plans. Stagger all joints and lay in ashlar pattern. Note tapered insulation to be covered with standard insulation to allow bonding to roof membrane. Before ordering, submit approved letter from insulation manufacturer to Architect that this insulation is approved by the Roofing Membrane System Manufacturer (Carlisle) and will be included in their full systems warranty.

2.05 ACCESSORIES

- A. Prefabricated Roofing Expansion Joint Flashing: Sheet butyl over closed-cell foam backing seamed to galvanized steel flanges.
- B. Prefabricated Flashing Accessories:
 - 1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.
 - 2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
 - 3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
 - 4. Sure-Seal Pressure-Sensitive Reinforced Universal Securement Strip (RUSS):
- C. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
 - 1. Length as required for thickness of insulation material and penetration of deck substrate.
- D. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- E. Sealants: As recommended by membrane manufacturer.
- F. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.
- G. Wood Nailers - Shall be #2 or better lumber, 2"x 6" minimum, weather resistant, pressure treated of sizes as noted or as required. Plywood to be C.D.X. grade and also pressure treated. Nails and anchors shall be hot dipped or hot tumbled, corrosion resistant galvanized steel. Wood nailers at perimeter of roof shall be installed in accordance with F.M. (I-90) guidelines. Existing wood nailers shall be re-anchored in a similar pattern. Galvanized nails or screws shall be installed to penetrate the bottom nailer a minimum of 1-1/4", using a staggered fastening pattern in two rows at 24" on center in each row (12" on center). Fastener pattern density shall be increased within 8' of roof corners in two rows at 12" on center in each row (6" on center). Contractor shall verify that all existing nailers are anchored to decking and/or wall plates similar to the pattern as listed above, or anchored to masonry and structural steel 4'-0" on center, with 1/2" diameter anchor bolts and 5/8" diameter washers.
- H. Edgings and Terminations: Manufacturer's standard edge and termination accessories.
 - 1. Product: Snap-on edge system.
 - a. SecurEdge 200.
 - 2. Product: Coping.
 - a. SecurEdge 200 Coping.
 - 3. In lieu of Carlisle Secure Edge gravel stop and coping, it shall be the Contractor's option to provide and install all materials and labor required to install an equal metal fascia/gravel stop, similar in style, function and appearance, as approved by the roofing manufacturer to be included in the twenty (20) year Total System Warranty. Finish and gauge to be as specified above.
 - 4. Provide any matching drip extenders to cover all exposed wood nailers, common brick, etc., to same elevation as existing fascia being removed. Install matching joint covers, mitered outside corners, and inside cover plates, water dams, clips, anchors, etc., as part of the complete system.
 - 5. Termination Bar - Shall be aluminum of thickness and width as required by Carlisle. Shall be anchored with approved fasteners in spacing's to make bar stop tight against flashing and wall with proper sealant between (Carlisle Water Cut Off).
- I. Roof Drain

1. Roof drain shall be #ZC-100EARC as manufactured by Zurn, or approved equal with Duracoated cast iron body, with extension, roof sump receiver and under-deck clamp. Drain shall have combination membrane flashing clamp/gravel guard and low-silhouette cast iron dome strainer, secured with easily removed anchors for cleaning. Drain to be for 3" no-hub fittings.
2. Drainage pipe shall be service weight cast iron hubless CISPI 3001-85, ASTM A-888-90. Fittings shall be soil pipe coupling clamp-all Corp., Model 0, or Husky 4000.
3. Piping, roof sump and fittings shall be insulated with 1" thick fiberglass, nominal 4 lb. density with All Service Jacket (ASJ). Cold systems shall have a vapor barrier. Fittings, etc. may be covered with Zeston, or equal pre-molded fittings. Pre-molded sump covers by Armaflex (or similar materials) are not acceptable.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.02 PREPARATION, GENERAL

- A. Clean substrate thoroughly prior to roof application.
- B. Surfaces on which the Sure Seal Roofing System is to be applied shall be clean, smooth, dry, free of fins, sharp edges, loose and foreign materials, oil and grease.
- C. Spud off all existing roofing to gypsum decks, as shown on plans and remove from job site in areas where noted. Be careful not to destroy or disturb any electrical conduits on bottom side of deck.
- D. Do not begin work until other work that requires foot or equipment traffic on roof is complete.
- E. Apply manufacturer's recommended vapor retarder or temporary roof before roof installation.
- F. Install wood nailer at the perimeter of the roof and around all roof vents and any similar penetrations. The nailer shall be secured mechanically to the roof deck. The thickness of the nailer shall be as shown, or tapered such that the top of the nailer is flush with the surface to which the membrane is to be applied. Anchors to be of type and spacing's as approved by Carlisle and the Architect.
- G. Auger and clean all roof drains before beginning any work
- H. Before beginning work, a representative of Carlisle SynTec Systems shall examine the roof surfaces in order to insure that existing conditions are acceptable.

3.03 INSTALLATION - GENERAL

- A. Perform work in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
- B. The Architect's drawings and specifications are developed and provided to the Contractor to understand the design intent of the contract. Where these details are in conflict with the standard details, recommendations and specifications of the membrane manufacturer, or affect the guarantee, they shall be modified as required by the Contractor and approved by the Architect at no additional cost to the contract.
- C. All installation and materials used in Sure Seal Universal Roofing Systems shall be as furnished and specified and conforming to all physical properties as manufactured by Carlisle SynTec Systems, a Division of Carlisle Corporation, Carlisle, PA. All details of work shall be

coordinated and approved with Carlisle Corporation before starting work.

- D. Do not apply roofing membrane during unsuitable weather.
- E. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
- F. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- G. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- H. Coordinate the work with installation of associated counter flashings installed by other sections as the work of this section proceeds.
- I. When substrate preparation is responsibility of another installer, notify Architect of unsatisfactory conditions before proceeding.

3.04 INSULATION APPLICATION

- A. Apply vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
 - 1. Extend vapor retarder under cant strips and blocking to deck edge.
 - 2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
- B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.
- C. Carlisle Sure Seal Bonded Roofing System - Shall be applied over an approved insulation, bonded to the existing roof deck with a Factory Mutual approved system. Install starting from the high point of the roof and working to the low point. Lap all seams shingle fashion in direction of drainage.
- D. Attachment of Insulation:
 - 1. Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions and Factory Mutual FM DS 1-29 requirements.
 - 2. Insulation on roof decks shall be installed with standard insulation as specified first and followed by tapered insulation. Adjust lengths of fasteners according to thickness of insulation. Type of screw fastener, fastener pattern, etc., shall be installed as required by insulation mfr., similar to the F.M. I-90 wind up-lift requirements for metal decks. Contractor shall perform a minimum of (5) anchor pull-out tests on each roof area with the proposed membrane underlayments and fastener to assure compliance with insulation manufacturer's written recommendations. Contractor shall submit written report of pull out tests to the Architect for approval prior to ordering insulation, anchors and roofing. Pull out resistance must meet the membrane manufacturer's requirements.
- E. Lay subsequent layers of insulation with joints staggered minimum 6 inches (152 mm) from joints of preceding layer.
- F. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
- G. Lay boards with edges in moderate contact without forcing, and gap between boards no greater than 1/4 inch (6.4 mm). Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- H. At roof drains, use factory-tapered boards to slope down to roof drains over a distance of 18 inches (457 mm).
- I. Do not apply more insulation than can be completely waterproofed in the same day.

3.05 MEMBRANE APPLICATION

- A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- B. Shingle joints on sloped substrate in direction of drainage.

- C. Fully Adhered Application: Membrane shall be bonded to the insulation and substrate with the bonding adhesive recommended by the Roofing System manufacturer and shall be installed in strict conformance with the manufacturer's specifications for the "Bonded Roofing System" - Design "A". Bonding Adhesive must be applied to both the membrane and the surface to which it is being bonded.
- D. Adjoining sheets of Membrane are overlapped a minimum of 3" along the length of the membrane (at selvage edged) in preparation for membrane splicing. At end laps (along the width of the sheet), membrane shall be overlapped 1/2" to 1" which will be overlaid with 6" wide Pressure-Sensitive Flashing. Note: all splices shall be overlaid with 6" wide Pressure-Sensitive Flashing for a 20-year warranty.
- E. All field splices of roofing membrane shall be installed using the double sided adhesive tape method with membrane thoroughly cleaned with "splice-wash", as manufactured and specified by Carlisle. Tape width shall be minimum of 6". Coat edge of final seam with lap sealant.
- F. Membrane Splicing with SecureTape:
 - 1. Prime the splice area with Sure-Seal Primer.
 - 2. Apply SecureTape to bottom membrane sheet with the edge of the release film along a line marked 1/2" out from the top sheet. Press tape onto sheet using hand pressure, overlapping tape, roll ends a minimum of 1".
 - 3. Remove the release film and press the top sheet onto the tape using hand pressure. Roll the splice with a 2" wide steel roller.
 - 4. Install a 6" wide section of Pressure-Sensitive Flashing or Elastoform Flashing over all field splice intersections and seal edges of flashing with Lap Sealant.
 - 5. The use of Lap Sealant along the entire splice edge is optional, except at tape overlaps.
- G. Membrane Splicing with Splicing Cement:
 - 1. When using Sure-Seal (black) Membrane, cleaning the splice area is not required unless the membrane has been contaminated with field dirt, adhesive or other residue.
 - 2. Apply Splicing Cement at a rate of approximately 100 square feet per gallon. Just prior to closing the splice, apply a 1/8" to 1/4" diameter bead of In-Seam Sealant a minimum of 1/2" from the inside edge of the bottom membrane and a minimum of 2" from the lead edge.
 - 3. Roll the top membrane sheet onto the mating surface and roll the splice with a 2" wide steel roller.
 - 4. After adjoining membrane sheets have been splice together, wait a minimum of 2 hours and, if necessary, clean exposed edge of splice with Splice Cleaner or HP-250 Primer. Apply a 5/16" diameter bead of Lap Sealant and feather to completely cover the splice edge.
- H. Flashing
 - 1. When feasible, flash all walls, curbs, etc., with continuous deck membrane. When the use of continuous membrane is not feasible, a separate piece of Cured EPDM Flashing, or Uncured Membrane may be utilized.
 - 2. Uncured Elastoform Flashing and Pressure-Sensitive Uncured Flashing shall be limited to overlaying vertical field seams, inside/outside corners, scuppers or other unusually shaped walls or penetrations; where use of Cured EPDM Flashing, EPDM Membrane, Pressure-Sensitive Flashing or Prefabricated accessories (pipe seals, Pourable sealer pockets, corners), is not practical.
 - 3. When using Pressure-Sensitive Flashing (semi-cured or cured) to overlay metal edging flanges, etc., Sure-Seal Primer must be used to clean the membrane and metal surfaces. Lap Sealant is optional on straight runs of Pressure-Sensitive Flashing and around Pressure-Sensitive Pipe Seals.
 - 4. Terminate the flashing in accordance with the appropriate FB-9 Termination Detail.
 - 5. Copings, counter flashing and metal work, not supplied by Carlisle, shall be fastened to prevent metal from pulling free or buckling and sealed to prevent moisture from entering the roofing system or building.

- I. **(for gypsum deck installation)** Insulation on roof decks shall be installed with standard insulation as specified first and followed by second layer insulation. Check to ensure the substrate is dry. FAST Adhesive cannot be applied to a wet or damp surface.
 1. Spray apply Sure-Seal FAST Adhesive over the dry substrate, (gypsum decks) at a coverage rate recommended by the manufacturer to allow for full coverage. (ribbons of adhesive greater than 6" on center will not be allowed).
 2. Allow the adhesive to rise up approximately 1/8" and set insulation boards into adhesive. Continue to install boards into the adhesive and after the necessary set up time (will vary based on temperature and amount of catalyst added) walk the boards into the adhesive and using the 30" wide, 100-150 pound weighted steel roller to ensure full embedment. Optimal set up time should be approximately 5 to 10 minutes. One person should be designated to walk/roll in all boards and trim/slit or apply weight as needed to ensure adequate securement.
 3. When multiple layers of insulation are specified or required, spray apply FAST Adhesive over the base layer once fully secured and follow the procedures noted above for attachment of each insulation layer.
- J. At intersections with vertical surfaces:
 1. Extend membrane over cant strips and up a minimum of 4 inches (102 mm) onto vertical surfaces.
 2. Provide and install all necessary bar stops as detailed or required to terminate flashings.
 3. Install sealant on top in all exposed areas to adhere to the bar stop and masonry. Shall be as approved by manufacturer (Carlisle Lap Sealant).
- K. Install roofing expansion joints where indicated, and ensure joints are watertight.
- L. Install prefabricated joint components in accordance with manufacturer's instructions.
- M. Install fascia, roof edge, copings in strict conformance with Carlisle's specifications. Install clips, anchors, mitered corners, etc. Seal all fasteners with elastoform lap splice and sealant on topside of gravel stop.
- N. Coordinate installation of roof drains and sumps and related flashings, locate field splices away from low areas and roof drains, and lap upslope sheet over downslope sheet. Support new cast iron horizontal pipe at each joint and not more than 5' intervals. Where no-hub fittings are utilized, install hangers per manufacturer's installation instructions, or install hanger each side of no-hub fittings and at 5' intervals. New cast iron drainage piping shall connect into existing cast iron drainage piping, above the suspended ceiling, using appropriate cast iron, no-hub wye fittings with clean-out.
- O. Daily Seal: Install daily seal per manufacturers instructions at the end of each work day. Prevent infiltration of water at incomplete flashings, terminations, and at unfinished membrane edges.

3.06 RELATED WORK

- A. Where noted on drawings, or where required in areas of new roofing, re-work all electrical conduits, wiring, gas lines, control wiring, etc.
- B. Provide and install all necessary blocking, clamps, fasteners, fittings, elbows, junction boxes, etc., as required.

3.07 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field quality control and inspection.
- B. Require site attendance of roofing and insulation material manufacturers daily during installation of this work.

3.08 CLEANING

- A. See Section 017419 - Construction Waste Management and Disposal, for additional requirements.

- B. Remove wrappings, empty containers, paper, and other debris from the roof daily. Dispose of debris in compliance with local, State, and Federal regulations.
- C. Remove bituminous markings from finished surfaces.
- D. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
- E. Repair or replace defaced or damaged finishes caused by work of this section.

3.09 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

**SECTION 076200
SHEET METAL - FLASHING AND TRIM**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, and exterior penetrations.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 042000 - Unit Masonry: Metal flashings embedded in masonry.
- D. Section 061000 - Rough Carpentry: Wood nailers for sheet metal work.
- E. Section 079200 - Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

1.03 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- B. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.
- C. CDA A4050 - Copper in Architecture - Handbook; current edition.
- D. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with min. 5 years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. See Section 017419 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

- A. Pre-Finished Aluminum: ASTM B209/B209M; 20 gauge, 0.032 inch (0.81 mm) thick; plain finish shop pre-coated with fluoropolymer coating.
 - 1. Polyvinylidene Fluoride (PVDF) Coating: Superior performing organic powder coating, AAMA 2605; pretreated metal with two-coat system including primer and color coat with at least 70 percent PVDF coating.
 - 2. Color: As selected by Architect from manufacturer's standard colors. Option of selecting (1) matching color for all gutters, downspouts, or fascia, or (3) separate colors.

3. Manufacturer to be same as other roofing or siding material providers specified elsewhere for same color match. In the absence of any, all products shall be as manufactured by ATAS International, Inc., Allentown, PA. as distributed by Inside Technical Sales, 610-393-8446 or approved equal.
- B. Finished color of exposed panels, trim, fascia, closers, etc., shall be selected from manufacturer's standard colors. Contractor shall submit color charts and samples to Architect for Owner's approval prior to fabrication.

2.02 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18-inch (450 mm) long legs; seam for rigidity, seal with sealant.
- F. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing _____. Return and brake edges.

2.03 WARRANTY

- A. The manufacturer shall furnish the standard metal panels, standard accessories and components, which shall be covered by its twenty (20) year warranty for finish against loss of finish adhesion, blistering, cracking, peeling, fading and other visible manufacturing defects.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify all conditions and dimensions of building and work of other trades before proceeding. Examine for any foreign material and unevenness, which would prevent the execution and quality of installation and watertightness expected.

3.02 INSTALLATION

- A. Provide all shims, trim furring, blocking, etc., in order to accomplish a job true in alignment and securely anchored.
- B. Install all work in strict conformance and as recommended by the manufacturer.
- C. Work shall be installed as detailed, using pre-formed accessories, or job site bent for a first class installation. Bends shall be clean, straight and sharp - free of any waves and buckles. "Tin canning" effect shall be at a minimum. Proper back-up shall be installed. Joint spacing shall be the minimum dimension consistent with allowing thermal movement without buckling.
- D. Install all material level and plumb in true alignment and securely anchored. Siding shall be full lengths. No short pieces less than 4' in length shall be used for gable and eave fascia. Ends of pieces shall be staggered between rows. In general, seams shall overlap in direction of water flow. Install in strict conformance with manufacturer instructions.
- E. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..
- F. Fasteners shall be of size to penetrate into studs/siding and installed to a point to allow metal to expand and contract (not driven home). No exposed fasteners are permitted. Allow sufficient end clearance to permit movement - no tight forced fits will be allowed. Number and spacing of nails shall be as recommended by the sheet metal industry and to keep material from rattling with normal wind and for UL-90 Rating. Anchor all fascia or roof panels at bottoms to allow expansion to occur at top or ridge.
- G. Apply plastic cement compound between metal flashings and felt flashings.

- H. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- I. Touch up any scraped material with matching paint. Replace dented materials.
- J. Install caulking as noted elsewhere, and/or as required for a weather resistant installation.

3.03 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

3.04 GUARANTEE

- A. At completion, this Installer/Contractor shall provide a written warranty for watertightness of metal roofing/fascia, soffit, gutters, downspouts and all related items for a system for a period of five (5) years from date of final payment. It shall include at no cost to the Owner, all labor, materials and equipment to repair and/or replace any or all of the work described herein. Submit watertightness/installation guarantee on company's letterhead. Also submit metal manufacturer's warranty as noted earlier.

END OF SECTION

SECTION 078400 FIRESTOPPING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Firestopping systems.
- B. Firestopping of joints and penetrations in fire-resistance-rated and smoke-resistant assemblies, whether indicated on drawings or not, and other openings indicated.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. ITS (DIR) - Directory of Listed Products; current edition.
- B. FM (AG) - FM Approval Guide; current edition.
- C. UL (FRD) - Fire Resistance Directory; Current Edition.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance ratings, and limitations.

1.05 QUALITY ASSURANCE

- A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated.
 - 1. Listing in UL (FRD), FM (AG), or ITS (DIR) will be considered as constituting an acceptable test report.
 - 2. Valid evaluation report published by ICC Evaluation Service, Inc. (ICC-ES) at www.icc-es.org will be considered as constituting an acceptable test report.
 - 3. Submission of actual test reports is required for assemblies for which none of the above substantiation exists.

1.06 FIELD CONDITIONS

- A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation; maintain minimum temperature before, during, and for three days after installation of materials.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Fire Stop Insulation – Shall be “ThermaFiber Fire Safing Insulation” unfaced, flame spread 15, smoke develop 0, as manufactured by Thermafiber Inc, Toledo, Oh. (888-834-2371) Blanket size is 4” thick x 24” x 48”.
- B. Fire Stopping - One part silicone sealant equal to Dow Corning 3-6548 RTV foam, flame spread of 20 per ASTM E-84-76A or Tremco “TREMstop Fyre Sil”.
- C. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Provide type of materials as required for tested firestopping assembly.
- D. Fire Ratings: Refer to drawings for required systems and ratings.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify openings are ready to receive the work of this section.

3.02 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials that could adversely affect bond of firestopping material.
- B. Remove incompatible materials that could adversely affect bond.
- C. Install backing materials to prevent liquid material from leakage.

3.03 INSTALLATION

- A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
- B. 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.
- C. Do not cover installed firestopping until inspected by authorities having jurisdiction.

3.04 CLEANING

- A. Clean adjacent surfaces of firestopping materials.

3.05 PROTECTION

- A. Protect adjacent surfaces from damage by material installation.

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
- C. Section 078400 - Firestopping: Firestopping sealants.
- D. Section 079100 - Preformed Joint Seals: Precompressed foam, gaskets, and strip seals.
- E. Section 079513 - Expansion Joint Cover Assemblies: Sealants forming part of expansion joint cover assemblies.
- F. Section 087100 - Door Hardware: Setting exterior door thresholds in sealant.
- G. Section 088000 - Glazing: Glazing sealants and accessories.
- H. Section 092220 - Non-Structural Metal Framing: Sealing between framing and adjacent construction in acoustical and sound-rated walls and ceilings.
- I. Section 092300 - Gypsum Plastering: Sealing acoustical and sound-rated walls and ceilings.
- J. Section 093000 - Tiling: Sealant between tile and plumbing fixtures and at junctions with other materials and changes in plane.

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. General interior - Acrylic latex paintable sealant caulking equal to Tremco #834.
- C. Fire Stopping - One part silicone sealant equal to Dow Corning 3-6548 RTV foam, flame spread of 20 per ASTM E-84-76A or Tremco "TREMstop Fyre Sil".
- D. Fixtures/Counters - One part mildew resistant silicone equal to Dow Corning #786.
- E. Compression Joints - one part, butyl #440 Tape, 1/16" or 1/8" by 3/8" or 1/2" wide in Grey or Black color as manufactured by Tremco.
- F. 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. Exterior heads and jambs of door frames.
 - 2. At intersections of aluminum work with other materials, etc.
 - 3. Under exterior door/window thresholds – full bed.
 - 4. Perimeter of louvers and grills at masonry or aluminum.
 - 5. Window frames (interior and exterior).
 - 6. Wall control and expansion joints.
 - 7. Counter backsplashes, plumbing fixtures, and miscellaneous trim - all against abutting walls.
 - 8. The edge and underside of asphalt shingles against metal drip edge on gable ends or other locations.
 - 9. Joints of exterior slabs/walks against buildings and in structural slabs/aprons/porches.
 - 10. In between lap joints of sills, flashing drips, 'Z' flashing and similar items.
 - 11. 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 081113
HOLLOW METAL DOORS AND FRAMES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fire-rated hollow metal doors and frames.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 079200 - Joint Sealants
- D. Section 087100 - Door Hardware.
- E. Section 088000 - Glazing: Glass for doors and borrowed lites.
- F. Section 099123 - Interior Painting: Field painting.

1.03 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames; 2015.
- C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2017.
- D. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2020.
- E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- F. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable; 2021.
- G. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2018a.
- H. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- I. ASTM C476 - Standard Specification for Grout for Masonry; 2020.
- J. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- K. NAAMM HMMA 840 - Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames; 2007.
- L. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; 2014.
- M. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2019.
- N. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.
- O. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames; 2013.
- P. UL 10B - Standard for Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- Q. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one

copy of referenced standards/guidelines.

- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements. Provide affidavit that all dimensions/conditions have been field verified.
- D. Samples: Submit two samples of metal, 2 by 2 inches (51 by 51 mm) in size, showing factory finishes, colors, and surface texture.
- E. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.
- F. Installer's Qualification Statement.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.
- B. Maintain at project site copies of reference standards relating to installation of products specified.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Steelcraft, an Allegion brand: www.allegion.com/#sle.
- B. Ceco Door, an Assa Abloy Group company: www.assaabloydss.com/#sle.
- C. Curries, an Assa Abloy Group company: www.assaabloydss.com/#sle.
- D. Republic Doors, an Allegion brand: www.republicdoor.com/#sle.

2.02 PERFORMANCE REQUIREMENTS

- A. Requirements for Hollow Metal Doors and Frames:
 - 1. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
 - 2. Accessibility: Comply with ICC A117.1 and ADA Standards.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 HOLLOW METAL DOORS

- A. Shall be of flush construction. Doors shall be made of 16 Ga. cold-rolled steel, 1-3/4". Doors shall be reinforced, stiffened, sound deadening and insulated with honeycomb type core completely filling inside of doors and laminated to both inside faces of panels. Doors shall have continuous vertical mechanical interlocking joints at lock and hinge edges. Doors shall have beveled (1/8" in 2") hinge and lock edges. Top and bottom steel reinforcing channel shall be spot welded within the doors. Hinge reinforcements shall be 8 Ga. for 1-3/4" doors. Lock reinforcements shall be 16 Ga. and closer reinforcements shall be 8 Ga. for 1-3/4" doors. Doors shall have galvanized reinforcements. Adequate reinforcing shall be provided for all hardware as required for high frequency use and hardware as specified.

- B. Fire Rating: As indicated on Door/Frame Schedule, tested in accordance with UL 10C and NFPA 252 ("positive pressure fire tests").

2.04 HOLLOW METAL FRAMES

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Flush Mount Type - Shall be manufactured from 16 Ga. cold-rolled steel, formed to the manufacturer's contour shown on plans with double return back bends. Frame jamb and head connection to be neat flush miter, with head securely locked to top of jamb. Mitered corners shall be welded and ground flush. Frames shall be supplied with factory installed rubber bumpers, (3) per strike jamb and (2) per head for pair of doors. Frames for 1-3/4" doors shall have 8 Ga. steel hinge reinforcing. Strike reinforcing shall be 16 Ga. and prepared for ANSI 115.1 Universal Strike.
- C. Knock Down (Wrap Around) Type - Shall be manufactured from 16 Ga. cold-rolled steel, wrap around type, formed to the manufacturer's contour shown on plans with double return back bends. Frames shall be knocked down, designed to be securely installed in openings around jambs. Frame jamb and head connection to be neat flush miter, with head securely locked to top of jamb. Mitered corners shall be reinforced with concealed corner clip, to provide a firm interlock of jamb to head. Frames shall be supplied with factory installed rubber bumpers, (3) per strike jamb and (2) per head for pair of doors. Frames for 1-3/4" doors shall have 8 Ga. steel hinge reinforcing. Strike reinforcing shall be 16 Ga. and prepared for ANSI 115.1 Universal Strike.
- D. Fire Rating: As indicated on Door/Frame Schedule, tested in accordance with UL 10C and NFPA 252 ("positive pressure fire tests").
- E. Borrowed Lites Glazing Frames: Construction and face dimensions to match door frames, and as indicated on drawings.
- F. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
- G. Frames in Masonry Walls: Size to suit masonry coursing with head member 4 inches (102 mm) high to fill opening without cutting masonry units.

2.05 FINISHES

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.
- B. All Hollow Metal to be field finished.

2.06 ACCESSORIES

- A. Glazing: As specified in Section 088000, factory installed.
- B. Removable Stops: Formed sheet steel, shape as indicated on drawings, mitered or butted corners; prepared for countersink style tamper proof screws.
- C. Grout for Frames: Mortar grout complying with ASTM C476 with maximum slump of 4 inches (102 mm) as measured in accordance with ASTM C143/C143M for hand troweling in place; plaster grout and thinner pumpable grout are prohibited.
- D. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.
- E. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 PREPARATION

- A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

3.03 INSTALLATION

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Install fire rated units in accordance with NFPA 80.
- C. Coordinate frame anchor placement with wall construction.
- D. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
- E. Install door hardware as specified in Section 087100.
 - 1. Comply with recommended practice for hardware placement of doors and frames in accordance with ANSI/SDI A250.6 or NAAMM HMMA 861.
- F. Coordinate installation of electrical connections to electrical hardware items.
- G. Damaged factory finishes/products are to be replaced (no touch-up of finishes allowed)

3.04 TOLERANCES

- A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.
- B. Maximum Diagonal Distortion: 1/16 inch (1.6 mm) measured with straight edge, corner to corner.

3.05 ADJUSTING

- A. Adjust for smooth and balanced door movement.

3.06 SCHEDULE

- A. Refer to Door and Frame Schedule on the drawings.

END OF SECTION

**SECTION 081116
ALUMINUM DOORS AND FRAMES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Aluminum Plank Doors
- B. Aluminum frames.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 079200 - Joint Sealants: Sealing joints between door frames and adjacent construction.
- D. Section 087100 - Door Hardware: Hardware for aluminum doors.
- E. Section 084525 - Fiberglass Reinforced Polymer Insulated Panels
- F. Section 088000 - Glazing: Glazing materials for aluminum doors and frames.

1.03 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights; 2017.
- B. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products; 2012.
- C. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document); 2015.
- D. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2014 (2015 Errata).
- E. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- F. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors; 2002 (Reapproved 2018).
- G. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015.
- H. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's descriptive literature for each type of door; include information on fabrication methods.
- C. Shop Drawings: Include elevations of each opening type.
 - 1. Verify dimensions by field measurements before fabrication and indicate on shop drawings.
- D. Selection Samples: Complete set of color and finish options, using actual materials, for Architect's selection.
- E. Installer's qualification statement.
- F. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.
- G. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer. Provide a minimum two-year written warranty on all labor related to this section. Any workmanship, which is defective or deficient, shall be corrected to the Owner's satisfaction and at no additional cost to the Owner.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of type specified and with at least five years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver aluminum components in manufacturer's standard protective packaging, palletted, crated, or banded together.
- B. Inspect delivered components for damage and replace. Repaired components will not be accepted.
- C. Store components in clean, dry, indoor area, under cover in manufacturer's packaging until installation.
- D. Protect materials and finish from damage during handling and installation.

1.07 FIELD CONDITIONS

- A. Do not begin installation of interior aluminum components until space has been enclosed and ambient thermal conditions are being maintained at levels consistent with final project requirements.

1.08 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. Manufacturer Warranty: Provide 10-year manufacturer warranty for defects in workmanship and materials. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 DOORS AND FRAMES

- A. Accessibility: Comply with ICC A117.1 and ADA Standards.
- B. Aluminum Plank Doors - Shall be FLT-400 series as manufactured by Cross Aluminum Products, Niles, MI 49120, (269) 697-8340 or equal CMI Architectural, Dowagiac, MI 49047, (269) 782-0299.
 - 1. Door to be thermal broken, mechanically bonded 1-3/4" tubular shaped sections that interlock a minimum of 3/8" and form a 1/4" thick vertical reinforcement every 4", with a minimum wall thickness of .100", with .187" minimum at lock and hinge stiles, of 6063-T5 alloy and have a fluted #10 pattern extruded in door sections. Joinery shall be a minimum of (3) 3/8" diameter cadmium plated steel rods per door, located near top, bottom and center of doors.
 - 2. Doors to be insulated with Polyisocyanurate boardstock.
 - 3. Unless noted, doors to be glazed with 1" insulated, clear, safety glass (8"x 36" lite per door), set in extruded glazing channels, removable from the inside with a minimum wall thickness of .080".
- C. Wide Stile and Rail Aluminum Doors (Exterior) - Shall be WST-500 Thermal Broken and Insulated (Exterior) or WS-500 (Interior) as manufactured by Cross Aluminum Products, Niles, MI 49120, (269) 697-8340 or equal CMI Architectural, Dowagiac, MI 49047, (269) 782-0299.
- D. Glazing: Section 088000 - Glazing.
- E. Thermal Break Frames to be 2" x 4-1/2" Series T14000 Storefront Framing or 2" x 6-1/2" Series T14650 (size as noted on drawings), as manufactured by Cross Aluminum Products, Niles, MI 49120, (269) 697-8340 or equal by Tubelite, Kawneer, or approved equal.
 - 1. Exterior doors to be weather-stripped on the sides. Frame joints to be mechanically jointed and fitted to hairline joints.
 - 2. Each hinge jamb to have 3/16" thick steel reinforcing, running the full height of the frame. Continuous gear hinges shall be mounted directly into this channel for concealed anchor installation when in the closed position. Aluminum reinforcing at frames is not

acceptable.

3. Caulk joints before assembling frame members. Secure joints with fasteners and provide a hairline butt joint appearance. Pre-fit doors to frame assembly at factory prior to shipment. Field fabrication of framing using "stick" material is not acceptable.

2.02 FINISHES

- A. Class I Color Anodized Finish: Electrolytically deposited colored anodic coating; AAMA 611 AA-M12C22A44, minimum dry film thickness (DFT) of 0.7 mils, 0.0007 inch (0.018 mm).
- B. Color: Dark Bronze or As indicated on drawings.

2.03 ACCESSORIES

- A. Anchors appropriate for wall conditions to anchor framing to wall materials. A minimum of five anchors up to 7'-4" on jamb members, and one additional anchor for each foot over 7'-4". Secure head and sill members of transom, side-lites and similar conditions.
- B. Fasteners: Aluminum, non-magnetic stainless steel, or other material warranted by manufacturer as non-corrosive and compatible with aluminum components.
- C. Bituminous Coating: Cold-applied asphaltic mastic, compounded for 30-mil (0.76 mm) thickness per coat.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that wall surfaces and openings are ready to receive frames and are within tolerances specified in manufacturer's instructions.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Perform cutting, fitting, forming, drilling, and grinding of frames as required for project conditions.
- B. Replace components with damage to exposed finishes.
- C. Separate dissimilar metals to prevent electrolytic action between metals.
- D. Coat inside of frames to be installed in masonry with bituminous coating, prior to installation.

3.03 INSTALLATION

- A. Install doors and frames in accordance with manufacturer's instructions and approved shop drawings.
- B. Set frames plumb, square, level, and aligned to receive doors. Anchor frames to adjacent construction in strict accordance with manufacturer's recommendations and within specified tolerances.
- C. Where aluminum surfaces contact metals other than stainless steel, zinc, or small areas of white bronze, protect from direct contact by painting dissimilar metal with heavy coating of bituminous paint.
- D. Hang doors and adjust hardware to achieve specified clearances and proper door operation.
- E. Install door hardware. See Section 087100.
- F. Install glazing; set glazing stops and glazing gaskets flush with face of door or frame.
- G. Set thresholds in a bed of mastic and back seal.
- H. Install perimeter sealant. Caulk entire interior and exterior perimeter of door framing system.
- I. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.
- J. Comply with glazing installation requirements. See Section 088000.

3.04 FIELD QUALITY CONTROL

- A. Provide services of aluminum door manufacturer's field representative to observe for proper installation of system and submit report.
- B. Provide field testing of installed aluminum doors by independent laboratory in accordance with AAMA 502 and AAMA/WDMA/CSA 101/I.S.2/A440 during construction process and before installation of interior finishes.
 - 1. Field test for water penetration in accordance with ASTM E1105 using Procedure B - cyclic static air pressure difference; test pressure shall not be less than 1.9 psf (91 Pa).
 - 2. Field test for air leakage in accordance with ASTM E783 with uniform static air pressure difference of 6.27 psf (300 Pa).
- C. Repair or replace fenestration components that have failed designated field testing, and retest to verify performance complies with specified requirements.

3.05 CLEANING

- A. Upon completion of installation, thoroughly clean door and frame surfaces in accordance with AAMA 609 & 610.
- B. Do not use abrasive, caustic, or acid cleaning agents.
- C. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths.
- D. Take care to remove dirt from corners, and wipe surfaces clean.
- E. Remove excess sealant from glass and aluminum by method acceptable to sealant and finish manufacturer.

3.06 PROTECTION

- A. Protect products of this section from damage caused by subsequent construction until Date of Substantial Completion.
- B. Replace damaged or defective components that cannot be repaired to a condition indistinguishable from undamaged components.

END OF SECTION

**SECTION 083100
ACCESS DOORS/PANELS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wall- and ceiling-mounted access units.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 099123 - Interior Painting: Field paint finish.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.
- C. Shop Drawings: Indicate exact position of each access door and/or panel unit.

PART 2 PRODUCTS

2.01 ACCESS DOORS AND PANELS ASSEMBLIES

2.02 WALL- AND CEILING-MOUNTED ACCESS UNITS

- A. Manufacturer - All doors shall be as manufactured by KARP Maspeth, New York (800-888-4212) or approved equal.
- B. Construction - Shall be 16-gauge frame and trim, 1" wide, with flanged trim for flush mounting with adjacent surfaces. Fire Rated Door to be 20-gauge steel, welded pan type, filled with 2" thick fire-rated insulation. Hinge shall be continuous piano hinge. Latch shall be bolt type, operated by flush key type device (all keyed alike), as selected by Owner. Door shall be operable from inside by single latch release.
- C. Model
 - 1. Fire Rated for wall or ceiling - #KRP-150R
 - a. Fire Rating - All shall be fire rated by U.L. for 1.5 hour "B" label in walls and by Warnoch Hersey for 3 hours in ceiling.
 - 2. Non Fire Rated for wall or ceiling - #DSC-214M
- D. Finish - Factory Painted to be To be White baked enamel with prime coat of rust inhibitive electrostatic powder. If called to be Field Painted with prime coat of rust inhibitive electrostatic powder, baked enamel.
- E. Sizes - As noted on drawings or standard sizes for wall to be 36"H x 24"W and for ceiling to be 36"H x 22"W.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that rough openings are correctly sized and located.
- B. Location - Shall be installed in basic area as shown on drawings and finalized in the field with Owner/Architect before framing in opening. Coordinate with other trades to assure door location and swing will serve function proposed.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to proceeding with this work.
- B. Provide templates and rough-in measurements as required.
- C. Begin installation only after substrates have been properly prepared using methods recommended by manufacturer for applicable substrates in accordance with project conditions,

and if the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.03 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Install frames plumb and level in openings, and secure units rigidly in place.
- C. Position units to provide convenient access to concealed equipment when necessary.
- D. Anchors - Install and secure into framed in opening per manufacturer's recommendations to achieve same fire rating as door/frame.
- E. Seal with proper sealant all voids, openings and irregularities around entire perimeter of frame against adjacent materials.

3.04 CLEANUP

- A. Remove all stickers, protective coverings and wash as recommended by manufacturer.

3.05 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

**SECTION 083313
COILING COUNTER DOORS - OVERHEAD DOOR**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Metal coiling counter doors with integral frame and sill.

1.02 RELATED REQUIREMENTS

- A. Section 061000 - Rough Carpentry: Rough openings.
- B. Section 079200 - Joint Sealants: Sealing joints between frames and adjacent construction.
- C. Section 087100 - Door Hardware: Cylinder cores and keys.

1.03 REFERENCE STANDARDS

- A. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM A 666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- C. ASTM A240/A240M - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications; 2020a.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's standard literature showing materials and details of construction and finish.
- C. Shop Drawings: Indicate rough and actual opening dimensions, anchorage methods, hardware locations, and installation details.
- D. Samples: Two slat samples or color chips, 4 inches (102 mm) long, illustrating shape, color, and finish texture.
- E. Manufacturer's Instructions: Indicate installation sequence and installation, adjustment, and alignment procedures.
- F. Manufacturer's qualification statement.
- G. Installer's qualification statement.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with minimum three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

1.07 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.08 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent finish materials to avoid damage to installed materials.

1.09 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Warranty: Manufacturer's limited door warranty for 2 years for all parts and components.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Overhead Door Corporation; 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overhaddoor.com
- B. Substitutions: See Section 016000 - Product Requirements.

2.02 ROLLING METAL COUNTER DOORS WITH INTEGRAL FRAME AND SILL

- A. Overhead Door Corporation; Model 657
 - 1. Stainless Steel Counter Doors with Integral Frame: Overhead Door Corporation, 657 Series.
 - a. Curtain: Interlocking roll-formed stainless steel slats with a #4 finish and with endlock for curtain alignment. Slats, 22 gauge stainless steel with stainless steel tubular bottom bar with neoprene astragal.
 - b. Integral Frame and Sill: Integral stainless steel frame with a #4 finish. Frame consists of 16 gauge jambs and header, with 14 gauge sill.
 - c. Stainless Steel Sill: By Kitchen Equipment Supplier - coordinate for integral installation.
 - d. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch (0.8 mm) per foot of span. Counterbalance shall be adjustable by means of an adjusting tension wheel.
 - e. Hood: Stainless steel with a #4 finish and provided with intermediate support brackets as required.
 - f. Operation: Manual push up.
 - g. Locking: Cylinder lock
 - h. Wall Mounting Condition: Between jambs mouting installed in an existing opening.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify adjacent construction is suitable for door installation.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. Verify door opening is plumb, header is level, and dimensions are correct.
- D. Notify Architect of unacceptable conditions or varying dimensions.
- E. Commencement of installation indicates acceptance of substrate and door opening conditions.

3.02 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb to provide smooth operation.

- E. Coordinate installation of sealants and backing materials at frame perimeter.
- F. Install perimeter trim and closures.

3.03 ADJUSTING

- A. Adjust operating assemblies for smooth and noiseless operation.
- B. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.

3.04 CLEANING

- A. Clean installed components.
- B. Remove labels and visible markings.

3.05 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION

**SECTION 087100
DOOR HARDWARE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Hardware for wood, aluminum, and hollow metal doors.
- B. Thresholds.
- C. Weatherstripping and gasketing.
- D. Field verification, preparation and modification of existing doors and frames to receive new door hardware

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 079200 - Joint Sealants: Sealants for setting exterior door thresholds.
- D. Section 080671 - Door Hardware Schedule: Schedule of door hardware sets.
- E. Section 081113 - Hollow Metal Doors and Frames.
- F. Section 081116 - Aluminum Doors and Frames.

1.03 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. ASTM B117 - Standard Practice for Operating Salt Spray (Fog) Apparatus; 2019.
- C. BHMA (CPD) - Certified Products Directory; Current Edition.
- D. BHMA A156.1 - Standard for Butts and Hinges; 2021.
- E. BHMA A156.3 - American National Standard for Exit Devices; 2014.
- F. BHMA A156.4 - Door Closers and Pivots; 2024.
- G. BHMA A156.13 - American National Standard for Mortise Locks & Latches Series 1000; 2017.
- H. BHMA A156.16 - Standard for Auxiliary Hardware; 2023.
- I. BHMA A156.18 - American National Standard for Materials and Finishes; 2016.
- J. BHMA A156.20 - Standard for Strap and Tee Hinges, and Hasps; 2021.
- K. BHMA A156.26 - Standard for Continuous Hinges; 2021.
- L. BHMA A156.28 - Standard for Recommended Practices for Mechanical Keying Systems; 2023.
- M. BHMA A156.31 - Electric Strikes and Frame Mounted Actuators; 2024.
- N. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2016.
- O. BHMA A156.115W - Hardware Preparation in Wood Doors with Wood or Steel Frames; 2006.
- P. DHI (H&S) - Sequence and Format for the Hardware Schedule; 1996.
- Q. DHI (KSN) - Keying Systems and Nomenclature; 2019.
- R. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; 2004.
- S. DHI WDHS.3 - Recommended Locations for Architectural Hardware for Flush Wood Doors; 1993; also in WDHS-1/WDHS-5 Series, 1996.
- T. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- U. ISO 9000 - Quality Management Systems -- Fundamentals and Vocabulary; 2015.
- V. ITS (DIR) - Directory of Listed Products; current edition.

- W. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- X. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2019.
- Y. NFPA 101 - Life Safety Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- Z. NFPA 105 - Standard for Smoke Door Assemblies and Other Opening Protectives; 2019.
- AA. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.
- BB. UL (DIR) - Online Certifications Directory; Current Edition.
- CC. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- DD. UL 1784 - Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the manufacture, fabrication, and installation of products that door hardware is installed on.
- B. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.
- C. Preinstallation Meeting:
 - 1. Convene a preinstallation meeting one week prior to commencing work of this section; attendance is required by:
 - a. Affected installers
 - b. Architect
 - c. Installer's Hardware Consultant
 - d. Owner's Hardware Consultant (Allegion, Tyler Pratt, Architectural Services Consultant - tyler.pratt@allegion.com; Mobile - 734.308.8541)
 - e. Hardware Installer
 - f. ConstrGeneral Contractor
- D. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.
- E. Keying Requirements Meeting:
 - 1. Schedule meeting at project site prior to Contractor occupancy.
 - 2. Attendance Required:
 - a. Contractor.
 - b. Owner.
 - c. Architect.
 - d. Hardware Installer.
 - e. Owner's Key Representative.
 - 3. Agenda:
 - a. Establish keying requirements.
 - b. Verify locksets and locking hardware are functionally correct for project requirements.
 - c. Establish keying submittal schedule and update requirements.
 - 4. Incorporate "Keying Requirements Meeting" decisions into keying submittal upon review of door hardware keying system including, but not limited to, the following:
 - a. Keying requirements.
 - 5. 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.
 - 6. Deliver established keying requirements to manufacturers.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.
 - 1. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - 2. Include warranties for specified door hardware.
- C. Shop Drawings - Door Hardware Schedule: Submit detailed listing that includes each item of hardware to be installed on each door. Use door numbering scheme as included in Contract Documents.
 - 1. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - 2. Comply with DHI (H&S) using door numbers and hardware set numbers as indicated in construction documents.
 - 3. List groups and suffixes in proper sequence.
 - 4. Provide complete description for each door listed.
 - 5. Include account of abbreviations and symbols used in schedule.
 - 6. Indicate complete designations of each item required for each opening, include:
 - a. Door Index: door number, heading number, and Architect's hardware set number.
 - b. Catalog number, Quantity, type, style, function, size, and finish of each hardware item.
 - c. Name and manufacturer of each item.
 - d. Fastenings and other pertinent information.
 - e. Location of each hardware set cross-referenced to indications on Drawings.
 - f. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - g. Mounting locations for hardware.
 - h. Door and frame sizes and materials.
 - i. Degree of door swing and handing.
 - j. Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
 - 7. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - 8. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
- D. Samples for Verification:
 - 1. Submit color/finish samples for verification.
- E. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
 - 1. Submit manufacturer's parts lists and templates.
- F. Keying Schedule:
 - 1. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - 2. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - 3. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.

4. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 5. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 6. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 7. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
- G. Installer's qualification statement.
- H. Supplier's qualification statement.
- I. Closeout Submittals:
1. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 2. Catalog pages for each product.
 3. Factory order acknowledgement numbers (for warranty and service)
 4. Name, address, and phone number of local representative for each manufacturer.
 5. Parts list for each product.
 6. Final approved hardware schedule edited to reflect conditions as installed.
 7. Final keying schedule
 8. Copies of floor plans with keying nomenclature
 9. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- J. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
1. See Section 016000 - Product Requirements, for additional provisions.
 2. Lock Cylinders: Ten for each master keyed group.
 3. Tools: One set of each special wrench or tool applicable for each different or special hardware component, whether supplied by hardware component manufacturer or not.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified for commercial door hardware with at least five years of documented experience.
- C. Supplier Qualifications: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) and Electrified Hardware Consultant (EHC) available to Owner, Architect, and Contractor for consultation and to assist in work of this section.
1. Warehousing Facilities: In Project's vicinity.
 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
 4. Coordination Responsibility: Assist in coordinating installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
 - a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.

1.07 CERTIFICATIONS

- A. Fire-Rated Door Openings:
 - 1. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - 2. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- B. Smoke and Draft Control Door Assemblies:
 - 1. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - 2. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
- C. Accessibility Requirements:
 - 1. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match door hardware schedule.
- B. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.
- C. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- D. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
- E. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- F. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- G. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.09 COORDINATION

- A. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- B. Existing Openings: At existing doors, frames and/or hardware - field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.10 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Warranty against defects in material and workmanship for period indicated, from Date of Substantial Completion.
 - 1. Closers: Five years, minimum.
 - 2. Exit Devices: Three years, minimum.

3. Locksets and Cylinders: Three years, minimum.
4. Other Hardware: Two years, minimum.

1.11 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Certain products have been specified for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. Where "Acceptable Manufacturers" is omitted, submittals and substitution requests for other products will not be considered.
- B. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 DESIGN AND PERFORMANCE CRITERIA

- A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
- B. Provide individual items of single type, of same model, and by same manufacturer.
- C. Provide door hardware products that comply with the following requirements:
 1. Applicable provisions of federal, state, and local codes.
 2. Accessibility: ADA Standards and ICC A117.1.
 3. Applicable provisions of NFPA 101.
 4. Fire-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
 5. Hardware on Fire-Rated Doors: Listed and classified by UL (DIR), ITS (DIR), or testing firm acceptable to authorities having jurisdiction as suitable for application indicated.
 6. Hardware for Smoke and Draft Control Doors (Indicated as "S" on Drawings): Provide door hardware that complies with local codes, and requirements of assemblies tested in accordance with UL 1784.
 - a. Air Leakage Rate: Tested in accordance with UL 1784, with air leakage rate not to exceed 3.0 cfm/sf (0.01524 cu m/sec/sq m) of door opening at 0.10 inch (24.9 Pa) of water for both ambient and elevated temperature tests.
 7. Listed and certified compliant with specified standards by BHMA (CPD).
 8. Auxiliary Hardware: BHMA A156.16.
 9. Straps and Tee Hinges: BHMA A156.20.
 10. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
 11. Hardware Preparation for Wood Doors with Wood or Steel Frames: BHMA A156.115W.
 12. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified.
- D. Lock Function: Provide lock and latch function numbers and descriptions of manufacturer's series. See Door Hardware Schedule.

E. Fasteners:

1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru bolts are required.
4. Install hardware with fasteners provided by hardware manufacturer.
5. Provide fasteners of proper type, size, quantity, that comply with commercially recognized standards for proposed applications.
 - a. Aluminum fasteners are not permitted.
 - b. Provide phillips flat-head screws with heads finished to match door surface hardware unless otherwise indicated.
 - c. Provide machine screws for attachment to reinforced hollow metal and aluminum frames.
 - 1) Self-drilling (Tek) type screws are not permitted.
 - d. Provide stainless steel machine screws and lead expansion shields for concrete and masonry substrates.
6. Provide wall grip inserts for hollow wall construction.
7. Provide spacers or sex bolts with sleeves for through bolting of hollow metal doors and frames.
8. Fire-Rated Applications: Comply with NFPA 80.
 - a. Provide wood or machine screws for hinges mortised to doors or frames, strike plates to frames, and closers to doors and frames.
 - b. Provide steel through bolts for attachment of surface mounted closers, hinges, or exit devices to door panels unless proper door blocking is provided.
9. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.
 - a. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
 - b. Use materials which match materials of adjacent modified areas.
 - c. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.

F. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.

1. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
2. Use materials which match materials of adjacent modified areas.
3. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.

G. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.03 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Stanley
 - b. Roton
 - c. Hager
- B. Requirements:
 1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
 2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
 3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
 4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
 5. On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
 6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware.
 7. Install hinges with fasteners supplied by manufacturer.
 8. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.04 MORTISE LOCKS

- A. Manufacturers and Products:
 1. Scheduled Manufacturer and Product:
 - a. Schlage L9000 series
 2. Acceptable Manufacturers and Products:
 - a. Sargent 8200 series
- B. Requirements:
 1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3 hour fire doors.
 2. Indicators: Where specified, provide indicator window measuring a minimum 2 inch x 1/2 inch with 180 degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.
 - a. Outside Occupancy Indicator: Provide indicator above cylinder or emergency release for visibility while operating the lock that identifies an occupied/unoccupied status of the lock or latch.
 3. Provide locks manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance.
 4. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to "KEYING" article, herein.
 5. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1 inch (25 mm) throw, constructed of stainless steel.
 6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
 7. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
 - a. Lever Design: Schlage 03A

2.05 EXIT DEVICES

- A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 98/35A series
 2. Acceptable Manufacturers and Products:
 - a. Sargent 19-43-GL-80 series
- B. Requirements:
1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
 2. Cylinders: Refer to "KEYING" article, herein.
 3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
 4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
 5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
 6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
 7. Provide flush end caps for exit devices.
 8. Provide exit devices with manufacturer's approved strikes.
 9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
 10. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
 11. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
 12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
 13. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.06 CYLINDERS

- A. Construction Keying:
1. Replaceable Construction Cores.
 - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - 1) 3 construction control keys
 - 2) 12 construction change (day) keys.
 - b. Contractor will replace temporary construction cores with permanent cores.

2.07 KEYING

- A. Scheduled System:
1. Provide cylinders/cores keyed into Owner's existing keying system managed by Owner's key Representative, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

2.08 DOOR CLOSERS

- A. Manufacturers and Products:
1. Scheduled Manufacturer and Product:
 - a. LCN 4010/4110/4020 series
 2. Acceptable Manufacturers and Products:
 - a. Sargent 281 series
- B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. Certify surface mounted mechanical closers to meet fifteen million (15,000,000) full load cycles. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2 inch (38 mm) diameter with 11/16 inch (17 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers. When closers are parallel arm mounted, provide closers which mount within 6-inch (152 mm) top rail without use of mounting plate so that closer is not visible through vision panel from pull side.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI/BHMA Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.09 DOOR TRIM

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives.
 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Requirements:
 1. Provide push plates, push bars, pull plates, and pulls with diameter and length as scheduled.

2.10 PROTECTION PLATES

- A. Manufacturers:
 1. Scheduled Manufacturer:
 - a. Ives
 2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco
 - c. Rockwood
- B. Requirements:
 1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
 2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
 3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.11 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

- A. Manufacturers:
 1. Scheduled Manufacturers:
 - a. Glynn-Johnson

2. Acceptable Manufacturers:
 - a. Rixson, ABH
- B. Requirements:
 1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
 2. Provide friction type at doors without closer and positive type at doors with closer.

2.12 DOOR STOPS AND HOLDERS

- A. Manufacturers:
 1. Scheduled Manufacturer:
 - a. Ives
 2. Acceptable Manufacturers:
 - a. Trimco
 - b. Burns
 - c. Rockwood
- B. Provide door stops at each door leaf:
 1. Provide wall stops wherever possible. Provide concave type where lockset has a push button or thumbturn.
 2. Where a wall stop cannot be used, provide universal floor stops.
 3. Where wall or floor stop cannot be used, provide overhead stop.
 4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.13 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

- A. Manufacturers:
 1. Scheduled Manufacturer:
 - a. Zero International
 2. Acceptable Manufacturers:
 - a. National Guard
 - b. Reese
 - c. Legacy
 - d. Pemko
- B. Requirements:
 1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
 2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
 4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.14 FINISHES

- A. Finishes: Provide door hardware of same finish, unless otherwise indicated.
 1. Primary Finish: 652; satin chromium plated over nickel, with steel base material (former US equivalent US26D); BHMA A156.18.
 2. Secondary Finish: 626; satin chromium plated over nickel, with brass or bronze base material (former US equivalent US26D); BHMA A156.18.
 3. Exceptions:
 - a. Where base material metal is specified to be different, provide finish that is an equivalent appearance in accordance with BHMA A156.18.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.
- B. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- C. Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.
- D. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Where on-site modification of doors and frames is required:
 - 1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
 - 2. Field modify and prepare existing doors and frames for new hardware being installed.
 - 3. When modifications are exposed to view, use concealed fasteners, when possible.
 - 4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
 - a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
 - b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
 - c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.03 INSTALLATION

- A. Install hardware on fire-rated doors and frames in accordance with applicable codes and NFPA 80.
- B. Install hardware for smoke and draft control doors in accordance with NFPA 105.
- C. Use templates provided by hardware item manufacturer.
- D. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 - 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- E. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- F. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- G. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- H. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- I. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

- J. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
 - 3. Furnish permanent cores to Owner for installation.
- K. Lock Cylinders:
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
- L. Lead Protection: Lead wrap hardware penetrating lead-lined doors. Line levers and roses with lead. Apply kick and armor plates on lead-lined doors with adhesive as recommended by manufacturer.
- M. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- N. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- O. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- P. Thresholds: Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.
- Q. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- R. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- S. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- T. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.04 FIELD QUALITY CONTROL

- A. Perform field inspection and testing under provisions of Section 014000 - Quality Requirements.
- B. Provide Architectural Hardware Consultant (AHC) **Allegion (Tyler Pratt, Architectural Services Consultant - tyler.pratt@allegion.com; Phone: 734-308-8541)** to inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified, prepare inspection reports, and issue inspection reports.
 - 1. Representative will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.
 - 2. Representative will inspect fire rated doors and state in report whether installed work complies with NFPA 80.
- C. Provide functional testing and inspection of fire door assemblies by a qualified person in accordance with NFPA 80.
 - 1. Schedule fire door assembly inspection within 90 days of Substantial Completion of the Project.
 - 2. Submit a signed, written final report as specified in Paragraph 1.03.E.1.
 - 3. Correct all deficiencies and schedule a reinspection of fire door assemblies noted as deficient on the inspection report.
 - 4. Inspector to reinspect fire door assemblies after repairs are made.

- D. Provide inspection of required egress door assemblies by a qualified person in accordance with NFPA 101.
 - 1. Schedule egress door assembly inspection within 90 days of Substantial Completion of the Project for the required openings.
 - 2. Submit a signed, written final report as specified in Paragraph 1.03.E.2.
 - 3. Correct all deficiencies and schedule a reinspection of egress door assemblies noted as deficient on the inspection report.
 - 4. Inspector to reinspect required egress door assemblies after repairs are made.

3.05 ADJUSTING

- A. Adjust work under provisions of Section 017000 - Execution and Closeout Requirements.
- B. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Adjust Hardware for smooth operation.
 - 2. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.
 - 3. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 4. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- C. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.06 CLEANING

- A. Clean finished hardware in accordance with manufacturer's written instructions after final adjustments have been made.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Clean operating items per manufacturer's instructions to restore proper function and finish.
- D. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.

3.07 PROTECTION

- A. Protect finished Work under provisions of Section 017000 - Execution and Closeout Requirements.
- B. Do not permit adjacent work to damage hardware or finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.08 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

IDA HIGH SCHOOL

Hardware Group No. 01

For use on Door #(s):

103					
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Provide each RU door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CYLINDER/CORE	(TO MATCH EXISTING SYSTEM)	626	
		DOOR/HARDWARE BY	OVERHEAD DOOR MANUFACTURER		B/O

CONFIRM CYLINDER REQUIREMENTS WITH DOOR MANUFACTURER PRIOR TO ORDERING.

Hardware Group No. 02

For use on Door #(s):

106					
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Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY SET	ML2060 LWA M19V	626	C-R
1	EA	SURFACE CLOSER	4011 MC	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS33/WS33X	626	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

Hardware Group No. 03

For use on Door #(s):

107					
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Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	98-NL	626	VON
1	EA	RIM CYLINDER/CORE	(TO MATCH EXISTING SYSTEM)	626	
1	EA	SURFACE CLOSER	4111 SHCUSH MC	689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30 (AS REQ'D)	689	LCN
1	EA	GASKETING/WEATHERSTRIPPING	(BY DOOR/FRAME MANUFACTURER)		B/O
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	654A-223	A	ZER

COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER,
THE ARCHITECT, AND ALL RELATED TRADES.

END OF SECTION

**SECTION 088000
GLAZING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Insulating glass units.
- B. Glazing compounds.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 081116 - Aluminum Doors and Frames

1.03 REFERENCE STANDARDS

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; Current Edition.
- B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015 (Reaffirmed 2020).
- C. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers; 2005 (Reapproved 2019).
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- E. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.
- F. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation; 2010.
- G. GANA (GM) - GANA Glazing Manual; 2008.
- H. GANA (SM) - GANA Sealant Manual; 2008.
- I. GANA (LGRM) - Laminated Glazing Reference Manual; 2019.
- J. IGMA TM-3000 - North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial & Residential Use; 1990 (Reaffirmed 2016).

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
- C. Samples: Submit two samples 12 by 12 inch (304.8 by 304.8 mm) in size of glass units.
- D. Manufacturer's qualification statement.
- E. Installer's qualification statement.
- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Insulating Glass Units: One of each glass size and each glass type.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with GANA (GM), GANA (SM), GANA (LGRM), and IGMA TM-3000 for glazing installation methods. Maintain one copy on site.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years documented experience.

1. Provide company, field supervisors, and installers that hold active ANSI accredited certifications in appropriate categories for work specified.

1.06 FIELD CONDITIONS

- A. Do not install glazing when ambient temperature is less than 40 degrees F (4 degrees C).
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.07 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Insulating Glass Units: Provide a ten (10) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to replace failed units.
- C. Laminated Glass: Provide a ten (10) year manufacturer warranty to include coverage for delamination, including providing products to replace failed units.

PART 2 PRODUCTS

2.01 BASIS OF DESIGN (INTERIOR)

- A. Glazing - Shall be 1/4" clear, tempered glass and an impact safety rating of CPSC 16 CFR 1201 Category I, except for fire rated doors/frames shall be 5/16" nominal thickness, Monolithic Pyroguard Clear Fire-Rated Safety Glass with a 20 minute fire-rating (without hose stream) and an impact safety rating of CPSC 16 CFR 1201 Category I as fabricated by Oldcastle Glass or or Firelite Plus as manufactured by TPG or approved equal with approved Warnoch Hersey and/or Underwriters Laboratories, Inc. ratings. All door glass to be installed by Door Supplier, glazed with metal stops/clips. Fire rated glass shall be as manufactured by P.P.G., Guardian, Pilkington, Visteon or approved equal. Each pane of glass in a door or within 48" adjacent to the door, shall bear the manufacturer's mark designating the type and thickness of the glazing material. Each pane of Safety glazing or tempered glazing shall be permanently identified by the manufacturer. The identification mark shall be acid etched, sand blasted, ceramic fired, laser etched, embossed or of a type that, once applied cannot be removed without being destroyed.

2.02 BASIS OF DESIGN - INSULATING GLASS UNITS (EXTERIOR)

- A. Glass shall be not less than standard float glass. Factory glazing shall be 1/4 inch thick, as size and loading required in a nominal 1" overall insulated glass unit with Outdoor Lite: "Solarbronze" by PPG Industries, Inc., "Solarban" 60 Solar Control (Sputtered) by PPG Industries, Inc., on second surface (2). Air space to be 10% air and 90% Argon gas mix. Indoor Lite: Clear Float Glass.: Glass shall be warranted by the manufacturer against factory defects under normal conditions for a period of not less than ten (10) years. Note: All glass in doors or within 4' of door shall be safety/tempered glazing and an impact safety rating of CPSC 16 CFR 1201 Category I in same color and insulated style. All glass to be sized in accordance with load tables found in the appendix of ANSI/AAMA Specifications 101.85.

1. Performance Values:

Visible Light Transmission	U-Value Winter		SHGC	Shading Coefficient	Outdoor Visible Light Reflectance
42%	0.28		0.26	0.32	7%

2. Primary Sealant: Polyisobutylene applied to the edge of the spacer.
3. Secondary Sealant: Silicone.
4. Air Spacer: Continuous metal spacer with formed corners and an in-line connector, containing desiccant.
5. Each pane of glass in a door or within 48" adjacent to the door, shall bear the manufacturer's mark designating the type and thickness of the glazing material. Each pane of Safety glazing or tempered glazing shall be permanently identified by the manufacturer. The identification mark shall be acid etched, sand blasted, ceramic fired,

laser etched, embossed or of a type that, once applied cannot be removed without being destroyed.

2.03 ACCESSORIES

- A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot (25 mm for each square meter) of glazing or minimum 4 inch (100 mm) by width of glazing rabbet space minus 1/16 inch (1.5 mm) by height to suit glazing method and pane weight and area.
- B. Glazing Tape, Back Bedding Mastic Type: Preformed, butyl-based, 100 percent solids compound with integral resilient spacer rod applicable to application indicated; 5 to 30 cured Shore A durometer hardness; coiled on release paper; black color.
 - 1. Width: As required for application.
 - 2. Thickness: As required for application.
- C. Glazing Splines: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; color black.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that the minimum required face and edge clearances are being provided.
- C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- D. Verify that sealing between joints of glass framing members has been completed effectively.
- E. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

3.03 INSTALLATION, GENERAL

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following; weld splatter, fire-safing, plastering, mortar droppings, etc.

3.04 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)

- A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inch (152 mm) from corners.
- C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
- D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

3.05 INSTALLATION - DRY GLAZING METHOD (TAPE AND TAPE)

- A. Application - Interior Glazed: Set glazing infills from the interior of the building.
- B. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch (1.6 mm) above sight line.
- C. Place setting blocks at 1/4 points with edge block no more than 6 inch (152 mm) from corners.
- D. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
- E. Place glazing tape on free perimeter of glazing in same manner described above.
- F. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- G. Carefully trim protruding tape with knife.

3.06 FIELD QUALITY CONTROL

- A. Glass and Glazing product manufacturers to provide field surveillance of the installation of their products.
- B. Monitor and report installation procedures and unacceptable conditions.

3.07 CLEANING

- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
- B. Remove nonpermanent labels immediately after glazing installation is complete.
- C. Clean glass and adjacent surfaces after sealants are fully cured.
- D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

3.08 PROTECTION

- A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.
- B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION

**SECTION 092116
GYPSUM BOARD ASSEMBLIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Gypsum wallboard (regular).
- B. Gypsum wallboard (hi-impact).
- C. Joint treatment and accessories.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 072100 - Thermal Insulation: Acoustic insulation.
- D. Section 072500 - Weather Barriers: Water-resistive barrier over sheathing.
- E. Section 078400 - Firestopping: Top-of-wall assemblies at fire-resistance-rated walls.
- F. Section 079200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.
- G. Section 092220 - Non-Structural Metal Framing.
- H. Section 093000 - Tiling: Tile backing board.

1.03 REFERENCE STANDARDS

- A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2017.
- B. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2018.
- C. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2020.
- D. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2020.
- E. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2019.
- F. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
- G. GA-216 - Application and Finishing of Gypsum Panel Products; 2018.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.
- C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
- D. Test Reports: For stud framing products that do not comply with ASTM C645 or ASTM C754, provide independent laboratory reports showing maximum stud heights at required spacings and deflections.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum 5 years of experience.

PART 2 PRODUCTS

2.01 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
 - 1. Georgia-Pacific Gypsum: www.gpgypsum.com

2. USG Corporation: www.usg.com
 3. Substitutions: See Section 016000 - Product Requirements.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
 2. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
 3. Thickness:
 - a. Vertical surfaces: Min. 5/8" thick unless called out otherwise.
 - b. Ceilings: min. 5/8" thick unless called out otherwise. Overlaying existing board where sufficient support may be 1/2" min.
- C. Impact Resistant Wallboard: fire rated 5/8" thick "VHI" – "Fiberock" with fiberglass reinforced backing as manufactured by USG.

2.02 GYPSUM WALLBOARD ACCESSORIES

- A. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise. Control joints to be zinc #093.
- B. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
1. Paper Tape: 2 inch (50 mm) wide, high strength creased paper tape for joints and corners.
 2. Mud/Joint compound to be conventional medium weight. No lightweight materials are acceptable.
- C. Adhesive shall be panel type adhesive, water resistant, weatherproof, non-toxic, non-flammable, non-combustible equal to "PL Premium Adhesive" and as approved by the drywall manufacturer.
- D. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.
- E. Anchorage to Substrate: Tie wire, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that project conditions are appropriate for work of this section to commence.

3.02 BOARD INSTALLATION

- A. Install gypsum board as shown on the drawings and comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations. Installation shall be a 1st class job. Install with adhesive and screws. Hold drywall up from floor 1/2"±.
- B. All ends and edges of board shall occur over backing member and/or be installed to meet a U.L. one hour or two hour fire rating as detailed. Seal all gaps against adjacent existing materials (head, sill, etc.) with sealant - see Division #7.
- C. Ceilings are not to be anchored to any wood roof trusses any closer than 18" to any interior non-bearing wall. Drywall shall be clipped into plates as provided and installed by others.
- D. In areas of drywall ceilings with drywall soffits, drywall ceiling shall be installed first, followed by framing and ductwork. Exterior of soffit then to be covered with drywall. All shall be to maintain a 1-hour fire envelope at ceiling line.
- E. Install full height "J" trim on drywall edges where interior walls abut other materials.
- F. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.

- G. On full height walls, floor to floor/roof deck above, install drywall to form a minimum one hour envelope unless noted otherwise. Patch drywall and compound around all structural members, ductwork/fire dampers. Continue any expansion joint, full height floor to deck. Fill gaps between wall and deck, joists, and other obstructions with fire safing insulation (see other division).
- H. Refer to related mechanical/electrical drawings and drywall around all ductwork, grilles, openings, sleeves, etc. that occur in the drywall work either in exposed or unexposed locations. Seal drywall work tight to the passage of air. Special areas subject to movement are to be sealed with sealant or fire safing insulation/materials.
- I. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.

3.03 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Install all control joints and expansion joints consistent with lines of building spaces and in locations as required, recommended manufacturer and as noted and field verified in the field with Architect. Adjust location, provide proper ceiling/wall backing and add additional joints as required to insure proper movement of wall/ceiling without cracking.
- B. Corner Beads: Install at external corners, using longest practical lengths.

3.04 JOINT TREATMENT

- A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting type joint compound.
- B. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.
- C. Finish gypsum board in accordance with highest level/quality level 5 or better as defined in ASTM C840, except in the following locations:
 - 1. Level 3: Walls to receive textured wall finish.
 - 2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
 - 3. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.
 - 4. Level 0: Temporary partitions.
- D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Apply a uniform thin layer of joint compound to all joints and angles to be reinforced. Immediately apply joint tape centered over joint and seated into compound. Sufficient compound (approximately 1/64" to 1/32") must remain under the tape to provide proper bond. Follow immediately with a thin skim coat to embed tape, but not to function as a second coat. The tape or embedding coat must be thoroughly dry prior to application of second coat.
 - 2. Apply second coat of joint compound over embedded coat fill panel taper flush with surface; cover tape and feather out at least 3" beyond the first coat. On joints with no taper, cover tape and feather out at least 4" on either side of the tape. Allow second coat to dry thoroughly prior to application of finish coat.
 - 3. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).
 - 4. Taping, filling, and sanding are not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.
 - 5. Taping, filling, and sanding are not required at base layer of double-layer applications.
 - 6. On all exposed drywall, whether scheduled for paint or finishing or not, install a finish coat of compound evenly over and extend at least 2" beyond second coat on all joints and feather to a smooth uniform finish. This step is not necessary for drywall above suspended ceilings. Do not allow finish joint to protrude beyond the plane of the surface. Where necessary, sand lightly between coats and the final application of compound to provide a smooth surface, ready for decoration. When sanding, take care

not to roughen face paper. Globbs, misses gaps, etc., will not be accepted. The taping and spackling of drywall in un-exposed areas (above acoustical suspended ceilings) shall be finished the same as exposed areas, excluding the skim coat.

- E. After all irregularities have been eliminated and the joint treatment surfaces sanded, apply a thin skim coat of joint compound to the entire surface of the board that is exposed to the occupied space that is scheduled for paint or finishing (above ceilings excluded). Caution should be taken to eliminate laps or tool marks in the skim coating operation. The entire surface shall be lightly sanded as required to assure a smooth and even surface. An optional method is to install a prime coat of "Sheetrock First Coat", as manufactured by USG.
- F. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.05 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION

**SECTION 092220
NON-STRUCTURAL METAL FRAMING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Metal partition, ceiling, and soffit framing.
- B. Furred Walls.
- C. Framing accessories.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members; 2016, with Supplement (2018).
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- C. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2018.
- D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2020.
- E. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2020.
- F. 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 submittal procedures.
- B. Shop Drawings:
 - 1. Indicate prefabricated work, component details, stud layout, framed openings, anchorage to structure, acoustic details, type and location of fasteners, accessories, and items of other related work.
 - 2. Describe method for securing studs to tracks, splicing, and for blocking and reinforcement of framing connections.
- C. Product Data: Provide data describing framing member materials and finish, product criteria, load charts, and limitations.
- D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience and approved by manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Metal Framing, Connectors, and Accessories:
 - 1. ClarkDietrich: www.clarkdietrich.com
 - 2. Marino: www.marinoware.com
 - 3. Substitutions: See Section 016000 - Product Requirements.

2.02 FRAMING MATERIALS

- A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 10 psf (L/120 at 480 Pa).
 - 1. Interior Studs: C-shaped with knurled or embossed faces. Min. 22 Ga., 3-5/8" x 1-1/4". For abuse resistant installation (Defined as areas called for hi-impact drywall) studs and track to be 20 Ga.
 - 2. Exterior Fascia, wall, and roof curb members: Min. 20 Ga. 6" x 1-1/4" or as required for listed loads.
 - 3. Runners: U shaped, sized to match studs. Min. 22 Ga., 3-5/8" x 1-1/4".
 - 4. Ceiling Channels: C shaped min. 3-5/8" x 2.
 - 5. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch (22 mm).
 - 6. Furring Members: Zee-shaped sections, minimum 25 gauge, 3/4" deep x 2-3/4" wide.
 - 7. Resilient Sound Furring Channels: Single or double leg configuration; min. 25 gauge 1/2" deep x 2-1/2".
- B. Shaft Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.
- C. Area Separation Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with specified performance requirements.
- D. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws, and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
 - 1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
 - 2. Material: ASTM A653/A653M steel sheet, SS Grade 50, with G60/Z180 hot-dipped galvanized coating.
 - 3. Provide components UL-listed for use in UL-listed fire-resistance-rated head of partition joint systems indicated on drawings.
 - 4. Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-resistance rating of the wall assembly.
- E. Non-Loadbearing Framing Accessories:
 - 1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
 - 2. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
 - 3. Metal bridging shall be galvanized, 16 Ga., 1-1/2" cold-rolled channels at 4'-0" o.c. from finished floor.
 - 4. Fasteners: ASTM C1002 self-piercing tapping screws.
 - 5. Acoustic Insulation: As specified in Section 072100.
 - 6. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20 Type I - Inorganic.

2.03 FABRICATION

- A. Fabricate assemblies of framed sections to sizes and profiles required.
- B. Fit, reinforce, and brace framing members to suit design requirements.
- C. Fit and assemble in largest practical sections for delivery to site, ready for installation.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that rough-in utilities are in proper location.

3.02 INSTALLATION OF STUD FRAMING

- A. Comply with requirements of ASTM C754.

- B. Walls to be installed to meet a U.L. (1) hour rating, or (2) hour fire rating as detailed.
- C. See plans for wall heights – some to be full height from floor to floor/roof, floor to ceiling, floor to above ceiling, etc. All to be floor to roof unless noted otherwise. Maintain gap to deck (1/2"+) to allow deck movement. Gap remaining to be filled with fire safing insulation (see other division).
- D. Extend partition framing to structure where indicated and to ceiling in other locations.
- E. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
- F. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- G. Align and secure top and bottom runners at 24 inches (600 mm) on center.
- H. Fit runners under and above openings; secure intermediate studs to same spacing as wall studs.
- I. Studs: Space studs at 16 inches on center (at 406 mm on center) or as indicated an/or as required to meet standard.
- J. Align stud web openings horizontally.
- K. All new walls/furring to be framed around ductwork penetrations. See drawings for location and sizes of ductwork.
- L. Secure studs to tracks using fastener method. Do not weld.
- M. Stud splicing is not permissible.
- N. Fabricate corners using a minimum of three studs.
- O. Install double studs at wall openings, door and window jambs, not more than 2 inches (50 mm) from each side of openings.
- P. Brace stud framing system rigid. Anchor all walls properly to existing walls and structure with diagonal bracing, cross members, etc., for proper support.
- Q. Coordinate erection of studs with requirements of door frames; install supports and attachments.
- R. Coordinate installation of bucks, anchors, and blocking with electrical, mechanical, and other work to be placed within or behind stud framing.
- S. Blocking: Use wood blocking secured to studs. Provide blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware, and opening frames.
- T. Furr out all walls where noted, installing members at 16" on center as required. Anchor to wall and to top and bottom runner channels.

3.03 CEILING AND SOFFIT FRAMING

- A. Comply with requirements of ASTM C754.
- B. Install furring after work above ceiling or soffit is complete. Coordinate the location of hangers with other work.
- C. Install furring independent of walls, columns, and above-ceiling work.
- D. Securely anchor hangers to structural members or embed them in structural slab. Space hangers as required to limit deflection to criteria indicated. Use rigid hangers at exterior soffits.
- E. Space main carrying channels at maximum 72 inch (1 800 mm) on center, and not more than 6 inches (150 mm) from wall surfaces. Lap splice securely.
- F. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.

- G. Place furring channels perpendicular to carrying channels, not more than 2 inches (50 mm) from perimeter walls, and rigidly secure. Lap splices securely.
- H. Reinforce openings in suspension system that interrupt main carrying channels or furring channels with lateral channel bracing. Extend bracing minimum 24 inches (600 mm) past each opening.
- I. Laterally brace suspension system.

3.04 TOLERANCES

- A. Maximum Variation From True Position: 1/8 inch in 10 feet (3 mm in 3 m).
- B. Maximum Variation From Plumb: 1/8 inch in 10 feet (3 mm in 3 m).

END OF SECTION

**SECTION 093000
TILING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Tile to match for floor applications.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 079200 - Joint Sealants: Sealing joints between tile work and adjacent construction and fixtures.

1.03 REFERENCE STANDARDS

- A. ANSI A108.1a - American National Standard Specifications for Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar; 2023.
- B. ANSI A108.1b - Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set, Modified Dry-Set, or Improved Modified Dry-Set Cement Mortar; 2023.
- C. ANSI A108.1c - Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set, Modified Dry-Set, or Improved Modified Dry-Set Cement Mortar; 2023.
- D. ANSI A108.2 - American National Standard General Requirements: Materials, Environmental and Workmanship; 2019.
- E. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesive or Water Cleanable Tile-Setting Epoxy Adhesive; 2023.
- F. ANSI A108.5 - Setting of Ceramic Tile with Dry-Set Cement Mortar, Modified Dry-Set Cement Mortar, EGP (Exterior Glue Plywood) Modified Dry-Set Cement Mortar, or Improved Modified Dry-Set Cement Mortar; 2023.
- G. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grout Epoxy; 2023.
- H. ANSI A108.8 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant Furan Resin Mortar and Grout; 1999 (Reaffirmed 2024).
- I. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout; 2023.
- J. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework; 2017 (Reaffirmed 2022).
- K. ANSI A108.12 - Installation of Ceramic Tile with EGP (Exterior Glue Plywood) Modified Dry-Set Mortar; 2023.
- L. ANSI A108.13 - American National Standard for Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone; 2005 (Reaffirmed 2021).
- M. ANSI A108.19 - American National Standard Specifications for Interior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs by the Thin-Bed Method Bonded with Modified Dry-Set Cement Mortar or Improved Modified Dry-Set Cement Mortar; 2020.
- N. ANSI A118.1 - American National Standard Specifications for Dry-Set Cement Mortar; 2023.
- O. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar; 2023.

- P. ANSI A118.6 - American National Standard Specifications for Standard Cement Grouts for Tile Installation; 2019.
- Q. ANSI A118.7 - American National Standard Specifications for High Performance Cement Grouts for Tile Installation; 2019.
- R. ANSI A137.1 - American National Standard Specifications for Ceramic Tile; 2022.
- S. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation; 2019.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by affected installers.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
- C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.
- D. Installer's Qualification Statement:
 - 1. Submit documentation of National Tile Contractors Association (NTCA) or Tile Contractors' Association of America (TCAA) accreditation.
 - 2. Submit documentation of completion of apprenticeship and certification programs listed elsewhere.
- E. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Tile: 5 percent of each size, color, and surface finish combination.

1.06 QUALITY ASSURANCE

- A. Maintain one copy of and ANSI A108/A118/A136 and TCNA (HB) on site.
- B. Installer Qualifications:
 - 1. Company specializing in performing tile installation, with minimum of five years of documented experience.
 - a. Accredited Five-Star member of the National Tile Contractors Association (NTCA) or Trowel of Excellence member of the Tile Contractors' Association of America (TCAA).
 - 2. Installer Certification (min. 1 of the following):
 - a. Ceramic Tile Education Foundation (CTEF): Certified Tile Installer (CTI).
 - b. Apprenticeship Program: Installer has achieved Journeyworker status through an apprenticeship from the International Union of Bricklayers and Allied Craftworkers (IUBAC) or a U.S. Department of Labor (DOL)-recognized program.
 - c. Advanced Certifications for Tile Installers (ACT): Certification in the installation of membranes, mortar bed (mud) floors, mortar (mud) walls, shower receptors, large format tile, gauged porcelain tile/panels/slabs, and grouts.
 - d. International Masonry Training and Education Foundation (IMTEF): Supervisor Certification Program (SCP).

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.08 FIELD CONDITIONS

- A. Maintain ambient and substrate temperature above 50 degrees F (10 degrees C) and below 100 degrees F (38 degrees C) during installation and curing of setting materials.

PART 2 PRODUCTS

2.01 TILE

- A. Ceramic Mosaic Tile: ANSI A137.1 standard grade.
 - 1. Tile Manufacturer - Shall be as manufactured by American Olean, Crossville Ceramics, Summitville, Florida Tile, or approved equal. The following tile specification is based upon Crossville Ceramics. Similar tile, size, shape, texture, color shall be by other manufacturers as noted.
 - a. Floor - Shall be "Mainstreet" by Crossville, Inc. unpolished, slip resistant for wet areas meeting ADA requirements, cushion edge, uniform joints and size, color throughout tile, impervious porcelain. Size: 6"x6" field tile.
 - b. Trim - Shall be "Mainstreet" cove base unpolished by Crossville, Inc. Floor and wall to be in alignment with integral rolled base - no offset. Provide all bullnose, stretches, outside/inside corners, etc. 6"x12" cove base.
 - c. Termination Floors to be wall to wall working into miscellaneous floor drains. Wall tile to set on top of base - full height to ceiling. Base shall be applied flush with wall tile and floor. Outside corners and terminations in the same plane of base and wall, shall be made with matching bullnose tile. Inside corners of walls and base to meet square with one side lapping other side. Terminate into doorframes with bullnose edge on all wall and base tile. Where base continues beyond wall tile use coved/bullnose top base.
 - d. Colors - Colors to be as on drawings or selected by Architect from manufacturer's standards. Wall field, accent stripe(s), trim, and base may be different color/finish. Each room may have different colors/finishes.

2.02 TRIM AND ACCESSORIES

- A. Ceramic Trim: Matching bullnose, double bullnose, cove base, and cove ceramic shapes in sizes coordinated with field tile.
 - 1. Manufacturers: Same as for tile.
- B. Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
 - 1. Manufacturers:
 - a. Schluter-Systems: www.schluter.com/#sle.
 - b. Genesis APS International: www.genesis-aps.com/#sle.
 - c. Substitutions: See Section 016000 - Product Requirements.
 - 2. Applications:
 - a. Floor (Preferred): Junctures between same height floor materials - Schluter-SCHIENE, height as required by materials, Satin Anodized Aluminum
 - b. Floor (Optional): Junctures between differing floor material heights (max. 1/4" difference) – Schluter-RENO-TK, height as required by materials, Satin Anodized Aluminum.
 - c. Floor (Optional): Junctures between differing floor material heights (min. 1/4" difference) – Schluter-RENO-RAMP, ADA Compliant, height as required by floor materials, Satin Anodized Aluminum.

2.03 SETTING MATERIALS

- A. Provide setting and grout materials from same manufacturer.
- B. Mortar/Adhesive
 - 1. Thin Set - Dry-set mortar shall conform with ANSI A118.1, or latex-portland cement mortar shall conform with ANSI A118.4.
 - 2. Conventional Mortar Bed - Shall conform with ANSI A108.1; approximately 1-1/4" thick on floors, with mixture of portland cement and sand of 1:5; approximately 3/4" to 1" thick for walls with mixture of portland cement and sand and lime of 1:5:1/2 to 1:7:1.

2.04 GROUTS

- A. Provide setting and grout materials from same manufacturer.
- B. High Performance Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.
 - 1. Applications: Use this type of grout where indicated and where no other type of grout is indicated.
 - 2. Grouts to be "TEC Power Grout" TEC brand as manufactured by H.B. Fuller Construction Products, Inc. (800)832-9002 or approved equal. Shall be highly resistant to stains, mold and mildew and be rated as extremely durable joints that resist cracking. Mix and install in strict conformance with manufacturer's specifications.
 - 3. For grout joints from 1/16" to 1/2" wide (1.6 mm to 12 mm)
 - 4. Color(s): As indicated on drawings.

2.05 ACCESSORY MATERIALS

- A. Cleaner - Neutral chemical cleaner, which will not discolor, or change color of tile or grout.
- B. Sealer - As recommended by manufacture of tile.
- C. Self-leveling underlayment concrete, equal to ARDEX K-15 and ARDEX P-51 primer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that subfloor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
- B. Verify that subfloor surfaces are dust free and free of substances that could impair bonding of setting materials to subfloor surfaces.
- C. Thoroughly examine work previously executed, which may influence completion of tile work. Any loose substrate on floors shall be removed and cleaned to a sound surface. Surface shall be leveled within 1/8" in 10' radius, using a self-leveling underlayment concrete and primer installed in strict accordance with manufacturer's written instructions. Do not proceed until satisfactory corrections have been completed.
- D. Cementitious Subfloor Surfaces: Verify that substrates are ready for tiling installation by testing for moisture and alkalinity (pH).
 - 1. Obtain instructions if test results are not within limits recommended by tiling material manufacturer and setting material manufacturer.

3.02 PREPARATION

- A. Protect surrounding work from damage.
- B. Vacuum clean surfaces and damp clean.
- C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.
- D. Prepare substrate surfaces for adhesive installation in accordance with adhesive manufacturer's instructions.

3.03 INSTALLATION - GENERAL

- A. Install tile and thresholds and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.19, manufacturer's instructions, and TCNA (HB) recommendations.
- B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
- E. Form internal angles square and external angles bullnosed.

- F. Tile shall be laid level and/or plumb. Joints for the individual type of tile shall be straight, uniform and within such limits as are practicable throughout the work to match and align. Tile work shall be laid out on walls and floors starting at center line, so that the joints align with wall tile to provide the largest border units as possible.
- G. Install non-ceramic trim in accordance with manufacturer's instructions.
- H. Sound tile after setting. Replace hollow sounding units.
- I. Keep control and expansion joints free of mortar, grout, and adhesive.
- J. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
- K. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.
- L. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.
- M. Remove all grout haze until none remains. See cleaning section.
- N. Caulk all expansion/control joints, wall tile against ceiling, end of wall tiles stopping in middle of wall, miscellaneous other areas as noted or required for a water-resistant installation, with a mildew resistant sealant in matching color as selected. See other Division for sealant type.

3.04 INSTALLATION - FLOORS - THIN-SET METHODS

- A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113, dry-set or latex-Portland cement bond coat, with standard grout, unless otherwise indicated.
 - 1. Where waterproofing membrane is indicated, install in accordance with TCNA (HB) Method F122, with latex-Portland cement grout.
 - 2. Where epoxy bond coat and grout are indicated, install in accordance with TCNA (HB) Method F131.

3.05 INSTALLATION - FLOORS - MORTAR BED METHODS

- A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F111, with cleavage membrane, unless otherwise indicated.
 - 1. Where waterproofing membrane is indicated, with standard grout or no mention of grout type, install in accordance with TCNA (HB) Method F121.
 - 2. Where epoxy bond coat and grout are indicated, install in accordance with TCNA (HB) Method F132, bonded.
- B. Cleavage Membrane: Lap edges and ends.
- C. Mortar Bed Thickness: 5/8 inch (15.9 mm), unless otherwise indicated.

3.06 CLEANING AND SEALING

- A. Clean tile and grout surfaces.
- B. Remove all grout haze, observing grout manufacturer's recommendations as to the use of acid and chemical cleaners. Rinse all tile work thoroughly with clean water before and after using chemical cleaners.

3.07 PROTECTION

- A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

**SECTION 095100
ACOUSTICAL CEILINGS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Suspended metal grid ceiling system.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels; 2019.
- B. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions; 2022.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units until after interior wet work is dry.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate grid layout and related dimensioning.
- C. Product Data: Provide data on suspension system components and acoustical units.
- D. Samples: Submit two full size samples illustrating material and finish of acoustical units.
- E. Samples: Submit two samples each, of suspension system main runner, cross runner, and perimeter molding.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Acoustical Units: Quantity equal to 5 percent of total installed.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work specified in this section, with minimum of five years of documented experience.

1.07 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F (16 degrees C), and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Acoustic Tiles/Panels:
 - 1. Armstrong World Industries, Inc: www.armstrongceilings.com/#sle.
 - 2. CertainTeed Corporation: www.certainteed.com/#sle.
 - 3. USG Corporation: www.usg.com/ceilings/#sle.
- B. Suspension Systems:
 - 1. Same as for acoustical units.

2.02 TYPES

- A. Kitchens (Sanitary Ceilings)

1. Shall be "Kitchen Lay-In Panels" (#3210/USG), 24"x 24" x 5/8", square edge, Class "A" flame spread and U.L rated 1 hour.
2. Grid suspension system shall be 1-1/2" high x 15/16" wide inverted bulb "T" Series DXLA/DXACE, Heavy Duty ASTM Class, by Donn USG.
3. Wall mold to be "M7" with 3/4" face.
4. Grid/Trim/Transition Finish to be Flat White #050 baked enamel.
5. Where noted on drawings provide complete fire rated installation per manufacturer directions including specific requirements of any noted UL Designations.
6. Provide special trim/transition pieces as required and/or detailed for a complete installation.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.02 PREPARATION

- A. Install after major above-ceiling work is complete.
- B. Coordinate the location of hangers with other work.
- C. Provide hanger clips during steel deck erection. Provide additional hangers and inserts as required.

3.03 INSTALLATION - SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions, as required for the indicated fire rating, and as supplemented in this section.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Locate system on room axis according to reflected plan. Notify and consult architect where there are differences from plans that will effect layout. Systems shall be installed to permit border units of greatest possible size. Do not install edge units in less than 50 percent of acoustical unit size. Layout to be symmetrical from room centerline in all directions using largest area as control and extending same grid lines into minor areas, alcoves, etc.
- D. Suspension System, Non-Seismic: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- E. Install suspension system independently in each room. Main runners to be installed continuously without being broken on 4' centers – wall to wall cross members @ 24" O.C. Entire perimeter to have angle member anchored to studs or masonry.
- F. The system shall be installed in strict accordance with the manufacturer's recommendations and in such a manner where noted on drawings to achieve the specified fire rating. Minimum hanger wire to be 12 ga. Galvanized steel. Wires to be anchored to building structure.
- G. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- H. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- I. Support fixture loads using supplementary hangers located within 6 inches (152 mm) of each corner, or support components independently.
- J. Do not eccentrically load system or induce rotation of runners.
- K. Level entire grid in place and rigidize before installation of ceiling tiles.

- L. Install light fixture boxes constructed of gypsum board above light fixtures in accordance with fire rated assembly requirements and light fixture ventilation requirements.

3.04 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- E. Cutting Acoustical Units:
 - 1. Cut to fit irregular grid and perimeter edge trim.
 - 2. Make field cut edges of same profile as factory edges.
- F. Where round obstructions occur, provide preformed closures to match perimeter molding.
- G. Install hold-down clips on each panel to retain panels tight to grid system; comply with fire rating requirements.
- H. Install hold-down clips on panels within 20 ft (6 m) of an exterior door.
- I. Where corridor ceilings are unrated and corridor walls terminate at the bottom of corridor ceilings, the corridor ceilings shall form a continuous membrane having a minimum tile uplift force of 1 lb/ sq. foot as required per NFPA 101 and/or the authority of jurisdiction. Provide ceiling tile density pads (in lieu of tile clips) as provided by ceiling manufacturer or approved equal installed in accordance with ceiling manufacturer requirements.

3.05 TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet (3 mm in 3 m).
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION

**SECTION 099000
PAINTING AND COATING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Interior painting and coating systems.
- C. Exterior painting and coating systems.
- D. Scope:
 - 1. This Contractor shall paint all exterior and interior building materials as required for a finished installation or as noted on drawings.
 - 2. Finish surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including but not limited to the following: .
 - a. All exposed brick lintels at any new work.
 - b. Interior walls and exposed drywall ceilings.
 - c. Interior concrete floors - Epoxy Paint
 - d. Interior steel doors and frames.
 - e. New exposed gas piping (on roof and elsewhere).
 - f. Interior and Exterior Electrical items not factory finished or as called out to be painted such as meter, electric disconnect/conduits/meter socket, etc. All new wire mold.
 - g. Fire Alarm Replacement - new device/junction boxes, cover plates, conduits, wire mold. Any surface exposed after work is completed, that was not exposed prior to work.
 - h. Miscellaneous items as required for a finished installation.
 - i. Patch Paint - any surface that was not exposed prior to this work and becomes exposed as a result of this work.
 - j. Items as called out in drawings.
 - 3. Contractor shall acquaint himself with all divisions of the specifications and drawings, as he shall paint or finish to completion all materials requiring painting or finishing which are left un-finished.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).
- B. SSPC-SP 2 - Hand Tool Cleaning; 2024.
- C. SSPC-SP 6 - Commercial Blast Cleaning; 2007.
- D. SSPC-SP 13 - Surface Preparation of Concrete; 1997 (Reaffirmed 2003).

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Product characteristics.
 - 2. Surface preparation instructions and recommendations.
 - 3. Primer requirements and finish specification.
 - 4. Storage and handling requirements and recommendations.
 - 5. Application methods.
 - 6. Clean-up information.

- C. Samples: Submit four paper draw down samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
- D. Applicator's qualification statement.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements for additional provisions.
 - 2. Extra Paint and Finish Materials: 1 gallon (4 L) of each color; from the same product run, store where directed.
 - 3. Label each container with color in addition to manufacturer's label.

1.05 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience and approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, product name, product code, color designation, VOC content, batch date, environmental handling, surface preparation, application, and use instructions.
- C. Paint Materials: Store at a minimum of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.
- D. Handling: Maintain a clean, dry storage area to prevent contamination or damage to materials.

1.07 FIELD CONDITIONS

- A. Do not apply materials when environmental conditions are outside the ranges required by manufacturer.
- B. Follow manufacturer's recommended procedures for producing the best results, including testing substrates, moisture in substrates, and humidity and temperature limitations.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design Products: Subject to compliance with requirements, provide Sherwin-Williams Company (The) products indicated; www.sherwin-williams.com/#sle.
- B. Comparable Products: Products of approved manufacturers will be considered in accordance with 016000 - Product Requirements, and the following:
 - 1. Other Acceptable Manufacturers:

2.02 PAINTINGS AND COATINGS

- A. General:
 - 1. Provide factory-mixed coatings unless otherwise indicated.
 - 2. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application.
 - 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless specifically indicated in manufacturer's instructions.
- B. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

2.03 PAINT SYSTEMS - EXTERIOR

- A. Exterior Concrete Block/Brick – Paint
 - 1 Coat: SW Pro Industrial Heavy-Duty Block Filler, B42 Series (16.0-21.0 mil wet, 8.0-10.5 mil dry)
 - 2 Coats: SW A-100 Exterior Acrylic Latex Flat, A6 Series (4 mil wet, 1.3 mil dry)
- B. Exterior Concrete Block/Brick – Elastomeric (Riverside Chimney)

- 1 Coat: SW Pro Industrial Heavy-Duty Block Filler, B42 Series (16.0-21.0 mil wet, 8.0-10.5 mil dry)
- 2 Coats: SW ConFlex SherLastic Elastomeric Coating, CF16 Series

C. Exterior Ferrous Metal - Paint

- 1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)
- 2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

D. Exterior Galvanized Metal – Paint

- 1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)
- 2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

E. Exterior Wood Fencing - Stain

- 2 Coats: Sherwin-Williams WoodScapes Exterior Polyurethane Semi-Transparent Stain Clear Base, A15T00005

2.04 PAINT SYSTEMS - INTERIOR

A. Interior Drywall – Paint Latex

- 1 Coat: SW ProMar 200 Zero VOC Interior Latex Primer, B28 Series (4 mil wet, 1.0 mil dry)
- 2 Coats: SW ProMar 200 Zero VOC Interior Latex Eg-Shel, B20 Series (4 mil wet, 1.5 mil dry)

B. Interior Wood - Paint

- 1 Coat: SW Prep Premium Wall and Wood Interior Latex Primer, B28 Series (4 mil wet, 1.6 mil dry)
- 2 Coats: SW ProMar 200 Zero VOC Interior Latex Eg-Shel, B20 Series (4 mil wet, 1.5 mil dry)

C. Interior Concrete Block/Brick - Epoxy

- 1 Coat: SW Pro Industrial Heavy-Duty Block Filler, B42 Series (16.0-21.0 mil wet, 8.0-10.5 mil dry)
- 2 Coats: SW Pro Industrial Waterbased Catalyzed Epoxy Eg-shel, B73 Series (5.0-12.0 mil wet, 2.0-5.0 mil dry)

D. Interior Concrete Block/Brick - Paint

- 1 Coat: SW Pro Industrial Heavy-Duty Block Filler, B42 Series (16.0-21.0 mil wet, 8.0-10.5 mil dry)
- 2 Coats: SW ProMar 200 Zero VOC Interior Latex Semi-Gloss, B31 Series (4 mil wet, 1.5 mil dry)

E. Interior Ferrous Metal – Paint

- 1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)
- 2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

F. Interior Galvanized Metal – Paint

- 1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)
- 2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

G. Interior Concrete Floor – Sealer

- 2 Coats: SW Armorseal 1000HS Gloss, B67 Series

H. Interior Concrete Floor – Non Slip Epoxy Coating

- 2 Coats EUCOPOXY TUFCOAT (2 Part Epoxy Clear or Colored Semi-Gloss Coating)
Shall be as manufactured by the Euclid Chemical Co., Cleveland, OH. Color to be clear or solid color as selected. Coating shall be installed after all major work is complete and when floor is completely dry. Thoroughly clean concrete floor of all grease, oil, dirt, etc.

per manufacturer directions, for proper adherence and so once sealed, a uniform appearance is achieved. Refer to manufacturer's recommendations for cleaning and if floor is acid cleaned, properly neutralize per manufacturer's recommendations before installing sealer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION

- A. General - Before painting, remove hardware, accessories, plates, lighting fixtures, fire alarm devices, and other similar items, or provide ample protection of such items. Remove any clear covers or other items where the painted surface can be seen at completion. Upon completion of each space, replace above items. Use only skilled mechanics for removing and connection of above items.
- B. Clean surfaces thoroughly and correct defects prior to application.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- D. Remove mildew from impervious surfaces by scrubbing with solution of water and bleach. Rinse with clean water and allow surface to dry.
- E. All hairline cracks, splits, gouges, scratches and alligatored surfaces shall be spackled with Durabond 90, following manufacturer's recommendations. Prime these areas with a heavy-duty primer similar to Sherwin Williams Prep Rite High Build Latex Primer, B28W601 (1-4 Mills Dry).
- F. Roughen up and clean all surfaces as required by manufacturer for proper bonding of product used to the material/surface being prepped.
- G. Concrete:
 - 1. Remove release agents, curing compounds, efflorescence, and chalk.
 - 2. Fill bug holes, air pockets, and other voids with cement patching compound.
 - 3. Prepare concrete according to SSPC-SP 13.
- H. Masonry: Remove efflorescence and chalk.
- I. Gypsum Board: Fill minor defects with filler compound; sand smooth and remove dust prior to painting.
- J. Plaster: Fill hairline cracks, small holes, and imperfections with patching plaster. Make smooth and flush with adjacent surfaces. Treat textured, soft, porous, or powdery surfaces in accordance with manufacturer's instructions.
- K. Concrete Floors and Traffic Surfaces: Prepare concrete according to SSPC-SP 13.
- L. Aluminum: Remove surface contamination and oil; wash with solvent according to SSPC-SP 1.
- M. Galvanized Surfaces:
 - 1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
 - 2. Prepare surface according to SSPC-SP 2.
- N. Ferrous Metal:
 - 1. Solvent clean according to SSPC-SP 1.
 - 2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces.
 - 3. Remove rust, loose mill scale, and other foreign substances using methods recommended by paint manufacturer and blast cleaning according to SSPC-SP 6. Protect from corrosion

until coated.

- O. Wood: Remove dust, grit, and foreign matter. Scrape, sand, and spot prime knots and pitch streaks. Fill nail holes and imperfections with wood filler and sand smooth.

3.03 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. All paint shall be installed in strict conformance with manufacturer's specifications. Surface to be painted shall be clean, dry, smooth and adequately protected from weather. Temperature shall be above 50 degrees F.
- C. Finished work shall be uniform, of approved color, smooth and free from runs, sags, defective brushing, clogging, or excessive flooding.
- D. Small cracks, holes and other imperfections in masonry surfaces, which show up after primer-sealer has been applied to the surface shall be filled with an approved spackling compound before application of second coat.
- E. Paint or finish all work specified herein and all work customarily painted for appearance or protection, as well as other specified items of work scheduled to be painted in room finish schedule.
- F. Apply coatings at spread rate required to achieve manufacturer's recommended dry film thickness.
- G. Regardless of number of coats specified, apply additional coats until complete uniform color, hide, and sheen is achieved.
- H. Fire Alarm / PA System Replacement - any surface that is exposed after work is completed, that was not exposed prior to work, is to be patch painted to color blend into the primary adjacent surface. All wire mold or exposed conduit to be painted to match surface it is mounted to. New and existing cover plates and device/junction boxes exposed to view as part of this work to be painted the color of surface mounted to.
- I. Marking and identification of Fire and Smoke barriers, partitions, and walls:
 - 1. Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with stenciling in the concealed space. Such identification shall:
 - a. Be located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition.
 - b. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke in a contrasting color incorporating the suggested wording, "FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS," or other wording.
 - 2. Included are both sides of all barriers, partitions, and walls within the contract limits and/or as indicated on the drawings.
- J. All patch painting shall be done in neat logical configurations, stopping at logical break points, such as inside or outside corners, at change of materials, or as directed by the Owner/Architect.

3.04 PRIMING

- A. Apply primer to all surfaces unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.
- B. Primers specified in painting schedules may be omitted on items factory primed or factory finished items if acceptable to top coat manufacturers.

3.05 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.
- B. Clean surfaces immediately of overspray, splatter, and excess material.

- C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

3.06 PROTECTION

- A. Protect finished coatings from damage until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

**SECTION 102800
TOILET, BATH, AND LAUNDRY ACCESSORIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Commercial toilet accessories.

1.02 RELATED REQUIREMENTS

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

1.03 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. ASTM F2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use; 2004, with Editorial Revision (2016).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.
- C. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. The base specifications as described in this section are based on products of Bobrick as distributed by Folding Equipment Company LLC, 5432 West Central Ave., Toledo, OH 43615, Phone: (419)-537-0222 or approved equals by ASI, Inc., Yonkers NY (914)476-9000.

2.02 FINISHES

- A. Stainless Steel: Satin finish, unless otherwise noted.

2.03 COMMERCIAL TOILET ACCESSORIES

- A. Mirrors - (1) for each sink. Shall be **Bobrick Model B-2908-2436**, with tempered glass, 24" wide x 36" height. Install where located on drawings with bottom edge mounted 3'-0" above floor line, or as shown on plans per manufacturer's written instructions.
- B. Grab Bars - (1) set for each handicap water closet. Shall be **Bobrick Model B-6806.99x42** (42" horiz.) and **Bobrick Model B-6806.99x18** (18" vert.) at sides of stall and/or **Bobrick Model B-6806.99x36** (36" horiz.) at rear of stall as indicated on drawings. Grab bars to be mounted with top 33" above floor, end shall be 12" from rear wall for side mounted bars and centered on water closet, or end 6" from corner for rear mounted bars. Note - a 2586 Series mounting kit is required for grab bars mounted stud wall construction. in toilet partitions and a 2521-30 Series toggle bolt or 2522-30 Series machine screw and expansion shield kit is required to mount grab bars in masonry. All shall be non-slip, stainless steel, with set screw matching finish escutcheons to cover anchors.
- C. Grab Bars - (1) set for each ambulatory water closet. Shall be **Bobrick Model B-6806.99x42** (42" horiz.) both sides of stall as indicated on drawings. Grab bars to be mounted with top 33" above floor, end shall be 12" from rear wall for side mounted bars. Note - a 2586 Series mounting kit is required for grab bars mounted stud wall construction. in toilet partitions and a 2521-30 Series toggle bolt or 2522-30 Series machine screw and expansion shield kit is

required to mount grab bars in masonry. All shall be non-slip, stainless steel, with set screw matching finish escutcheons to cover anchors.

- D. Toilet Tissue Dispensers - (1) for Each Water Closet: Shall be heavy duty cast aluminum with satin finish **Bobrick Model B-274 double roll dispenser with controlled delivery**, with ABS spindles, equipped with retractable pin and concealed locking mechanism. Toilet tissue dispenser shall be mounted on sidewall of stall 7"-9" maximum in front of water closet and 45" above floor (12" above top of grab bars) to bottom of dispenser, with fasteners as recommended by manufacturer. Note for all handicap stalls use standard Model – B2740 without controlled delivery.
- E. Sanitary Napkin Disposal - (1) for each women's water closet. Shall be stainless steel **Bobrick Model B-270 Contura**, sanitary napkin disposal. Cover shall be drawn, one-piece construction, secured to cabinet with full length piano hinge. Mount on sidewall nearest water closet, 20" from rear wall and top edge 5" below grab bar, or 26-1/2" above floor, per manufacturer's recommendations.
- F. Sanitary Napkin / Tampon Vendor (Free) - (1) for each women's toilet room. Shall be stainless steel **Bobrick Model B-37063C Trimline Series**. Flat door design with 90 degree return to conceal flange. Push button operation. Provide field changeable 25 cent, 50 cent, and token coin conversion accessories for each sanitary / tampon vendor provided.
- G. Paper Towel Dispenser and Waste Receptacle - (1) for each toilet room at Monroe High School and Admin toilets at Custer 1 and Arborwood North. Shall be **Bobrick Model B-38034** Recessed Stainless Steel Satin Finish, holds 600 "C" Fold, or 800 Multi-Fold Towels, 3.8 gal. removable Leak-proof rigid molded plastic waste container.
- H. Surface Mounted Hook – (1) for each Staff/Admin. Toilet Room. Shall be **Bobrick Model B-6707** stainless steel satin finish. Mount to wall securely with concealed fasteners as shown on plans.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.
- C. Verify that field measurements are as indicated on drawings.

3.02 PREPARATION

- A. Deliver inserts and rough-in frames to site for timely installation.
- B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.

3.04 PROTECTION

- A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION

**SECTION 114010
FOOD SERVICE EQUIPMENT & KITCHEN HOOD**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Foodservice equipment.
- B. Kitchen Exhaust Hood
- C. Washer and Dryer
- D. Connections to utilities.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 033000 - Cast-in-Place Concrete
- D. Section 079200 - Joint Sealants: Sealing joints between equipment and adjacent walls, floors, and ceilings.
- E. Section 260583 - Wiring Connections: Electrical characteristics and wiring connections.

1.03 REFERENCE STANDARDS

- A. FM (AG) - FM Approval Guide; current edition.
- B. ITS (DIR) - Directory of Listed Products; current edition.
- C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- D. NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations; 2024.
- E. NSF 2 - Food Equipment; 2022.
- F. SMACNA (KVS) - Kitchen Ventilation Systems and Food Service Equipment Fabrication and Installation Guidelines; 2001.
- G. UL (DIR) - Online Certifications Directory; Current Edition.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on appliances; indicate configuration, sizes, materials, finishes, locations, and utility service connection locations, service characteristics, and wiring diagrams.
- C. Certificates: Certify that products of this section meet or exceed specified requirements.
- D. Operation Data: Provide operating data for the specified equipment.
- E. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacture of standard products of the type specified.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Store products clear of floor in a manner to prevent damage.
- B. Coordinate size of access and route to place of installation.

1.08 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Provide one year manufacturer warranty for replacement or repair of scheduled equipment, refrigerant and compressors, including disconnection and removal of defective unit, and connection of replacement unit.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. **Foodservice Equipment:** as distributed by HPS; www.hpsgpo.com 3275N. M-37Hwy., P.O. Box 247, Middleville, MI 49333, Phone: 800-632-4572, Tammy Wilcox at twilcox@hpsnet.com
 - 1. Advance Tabco; www.advancetabco.com
 - 2. Vulcan; vulcanequipment.com
 - 3. Cleveland; www.clevelandrange.com
 - 4. True Manufacturing; www.truemfg.com
 - 5. Duke Manufacturing; www.dukemfg.eu
 - 6. Premeier Metal & Glass; www.pmg-inc.com
 - 7. GTI Designs; gtidesigns.com
- B. **Kitchen Exhaust Hood:** as distributed by Great Lakes Hotel Supply; www.glhsco.com 16990 Saint Pierre Road, Arcadia, MI 49613, Phone: 231-709-0080, Derrick Gage at dgage@glhsco.com
 - 1. K-Tech; www.mucklerktech.com 4880 36th Street SE, Grand Rapids, MI 49512, Phone: (616) 942-9881; email: reg77@ktechhoods.com.
- C. **Stackable Washer Dryer:** By Others
 - 1. Frigidaire; www.frigidaire.com
- D. Substitutions: See Section 016000 - Product Requirements.

2.02 REGULATORY REQUIREMENTS

- A. Comply with applicable codes for utility requirements.
- B. Products Requiring Electrical Connection: Listed and classified by FM (AG), ITS (DIR), UL (DIR), or testing agency acceptable to local authorities having jurisdiction as suitable for the purpose specified and indicated.

2.03 EQUIPMENT

- A. Equipment Schedule: Refer to schedule at end of this section. See Kitchen Equipment Floor Plan Drawing for location.
 - 1. Equipment Eligible for Energy Star Rating: Provide Energy Star Rated equipment
 - 2. Electrical Wiring and Components and Self-Contained Refrigeration Systems: Comply with UL (DIR) listed product standards.
 - 3. Exhaust Hoods: Comply with NFPA 96 and SMACNA (KVS).
- B. Installation Accessories: Provide rough-in hardware, supports and connections, attachment devices, closure trim, and accessories as required for complete installation.

2.04 FOODSERVICE EQUIPMENT SCHEDULE

See Kitchen Equipment Plan for location. Coordinate installation with mechanical, electrical and plumbing drawings.

- A. (1) Dishtable, clean "L" Shaped - Advance Tabco DTC-K30-120L
 - 1. 14 gauge stainless steel Korner clean dishtable, 11" backsplash and endsplash.
 - 2. Modify length to 115-1/2".
 - 3. Installation of disposal cone 14"x16" control bracket and faucet holes.
 - 4. Simple pass thru with modifications to accommodate new roll down door with pass-thru window frame.
 - 5. Legs, stainless steel, with metal bullet feet.

6. Dishtable undershelf, 54"W x 24"D, adjustable die cast leg clamps, stainless steel. Modified to 50" on pass thru side, upgrade to 16ga 304 stainless steel.
 7. Pre-rinse faucet, 8" OC splash mounted - spray valve & hose, riser, wall bracket, heavy duty hose spring
 8. Anti-Siphon vacuum breaker holes.
 9. Side Splash (welded).
 10. Enclose back of splash.
- B. (1) Clean Dishtable - Advance Tabco DTC-S30-96R
1. Modify Length to 91"
 2. 14 gauge stainless steel clean dishtable, 11" backsplash and sidesplash,.
 3. Legs, stainless steel, with metal bullet feet.
 4. Dishtable undershelf, 54"W x 24"D, adjustable die cast leg clamps, stainless steel. Modify to 50", upgrade to 16ga 304 stainless steel.
 5. Side splash (welded)
 6. Enclose back of splash.
- C. (1) Hand Sink - Advance Tabco 7-PS-66W
1. Includes K-36 wrist handle faucet
- D. (2) HD Range, 36", 6 open burners - Vulcan V6B36S
1. (6) 35,000 BTU open burners, cast iron grates, standard oven, stainless steel front, top, sides, base, burner box and stub back, adjustable legs, natural gas, 240v/60/1-ph, 2660 watts, 11.1 amps.
 2. Additional oven rack.
 3. 6" casters.
 4. T&S gas connector kit.
- E. (1) Convection Oven, Gas - Vulcan VC44GD
1. Double-deck, standard depth, (5) nickle plated racks per oven, stainless steel front, top sides with 8" ht. legs, stainless steel doors with windows, (2) 50,000 BTU.
 2. (2) 120v/60/1-ph, 15.4 amps total, (2) cords with plugs.
 3. Casters
- F. (2) Work Table, Stainless Steel Top - Advance Tabco VSS-368
1. 14 gauge 304 stainless steel top, adjustable undershelf, adjustable bullet feet.
 2. 96"W x 12"D rear mounted overshelf.
- G. (1) Reach-in Refrigerator - True Manufacturing - General Food Service TS-49-HC
1. Heavy duty solid Swing Door stainless steel, with adjustable shelves
 2. Additional wire shelf.
- H. (1) Two (2) Compartment Sink - Advance Tabco 94-22-40-24L
1. 14 gauge stainless steel, adjustable bullet feet, left hand 24" drainboard, 20"x20" 2-compartment sink, 14" deep, 11" ht. backsplash.
 2. Prerinse faucets with heavy duty hose and mounting kits- DTA-53, K-117, K-06
- I. (2) Hot Food Serving Counter / Table - Duke Manufacturing TWHF-60PG
1. 240v/60/1-ph, 2660 watts, 11.1 amps
 2. Textured black powder coat paint finish
 3. 34" height body, 14ga stainless steel top. Extend width of top 10" on customer side with 4" turn down.
 4. Kick plate, customer's side and on end, stainless steel recessed.
 5. Internal Locking device on both sides
 6. Install sneeze of guard.
- J. (4) Sneeze Guard, Sttaionary - Premier Metal & Glass TM2N-A
1. Adjustable food shelf with top shelf and rear supports; 3/8" clear tempered glass with polished edges and radius corners; both end panels fixed.

- K. (2) Serving Counter, Utility - Duke Manufacturing TST-60PG
 - 1. Textured Black powder coat paint finish
 - 2. 14ga stainless steel top, 34" height body, extend width of top up to 10" on customer side with 4" turn down.
 - 3. Kick plate, customer's side and on end, stainless steel recessed.
 - 4. Cut out in counter top for RHT2-SB drop-in.
 - 5. Internal locking device on both sides.
 - 6. Install of sneeze guard.
- L. (2) Heated Shelf Food Warmer - Duke Manufacturing RHT2-SB
 - 1. 120V 1PH NEMA 5-15
- M. (1) Open Display Merchandiser - GTI Designs URPT-1250
 - 1. Unites Pass Through ventilated cooling system (4) tiers with adjustable shelves, LED lights, night blind and stainless steel exterior.
 - 2. 25 amps 115V 1PH NEMA L5-30P

2.05 KITCHEN EXHAUST HOOD SCHEDULE

See Kitchen Equipment Plan for location. Coordinate installation with mechanical, electrical and plumbing drawings.

- A. (1) 12'x5' exhaust wall canopy hood with sides - K-Tech 6024 PK-NS-2 Q-SB-F, stainless steel construction, gas fired
 - 1. Refer to Kitchen Exhaust Hood Drawings for specifications and details.
- B. (1) Exhaust Fan - K-Tech DU180HK
- C. (1) MUA Fan - K-Tech K-A@-D.250-20D

2.06 STACKABLE WASHER / DRYER SCHEDULE

See Kitchen Equipment Plan for location. Coordinate installation with mechanical, electrical and plumbing drawings.

- A. (1) Gas Washer / Dryer Laundry Center - Frigidaire FLCG7522AW
 - 1. 3.9 Cu. Ft. Washer and 5.5 Cu. Ft. Dryer, Color White

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify ventilation outlets, service connections, and supports are correct and in required location.
- B. Verify that electric power is available and of the correct characteristics.
- C. Verify gas is available and of the correct characteristics.

3.02 INSTALLATION

- A. Install items in accordance with manufacturers' instructions.
- B. Insulate to prevent electrolysis between dissimilar metals.
- C. Install kitchen equipment in strict conformance with manufacturer's directions and specifications.
- D. General Contractor to perform all final hook ups. so that equipment is operational.

3.03 EXISTING EQUIPMENT

- A. General Contractor to move, store, and re-install existing equipment, ready for utility connection.
- B. Do work in cooperation with Owner so that normal function of services is minimally interrupted.
- C. Re-used Equipment: Refer to schedule on drawings for re-used equipment.
- D. General Contractor to perform all final hook ups, so that equipment is operational.

3.04 ADJUSTING

- A. Adjust equipment and apparatus to ensure proper working order and conditions.
- B. Remove and replace equipment creating excessive noise or vibration.

3.05 CLEANING

- A. Remove masking or protective covering from stainless steel and other finished surfaces.

3.06 CLOSEOUT ACTIVITIES

- A. At completion of work, provide qualified and trained personnel to demonstrate operation of each item of equipment and instruct Owner in operating procedures and maintenance.
 - 1. Test equipment prior to demonstration.
 - 2. Individual Performing Demonstration: Fully knowledgeable of all operating and service aspects of equipment.

3.07 PROTECTION

- A. Remove protective coverings from prefinished work.
- B. Protect finished work from damage.

END OF SECTION

**SECTION 312200
GRADING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Removal and stockpiling of topsoil.
- B. Rough grading the site for site structures.
- C. Finish grading.

1.02 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements
- B. Section 017000 - Execution and Closeout Requirements
- C. Section 312316 - Excavation.
- D. Section 312323 - Fill and Testing: Filling and compaction.
- E. 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 subsoil from areas to be further excavated, re-landscaped, or re-graded.

- D. Do not remove wet subsoil , unless it is subsequently processed to obtain optimum moisture content.
- E. When excavating through roots, perform work by hand and cut roots with sharp axe.
- F. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.
- G. 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 building and trench backfilling have been inspected.
 - 2. Verify subgrade has been contoured and compacted.
 - 3. 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 building volume below grade, footings, pile caps, slabs-on-grade, paving, site structures, and utilities within the building/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: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring. General requirements for dewatering of excavations and water control.
- C. Section 312200 - Grading
- D. Section 312200 - Grading: 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 312200 for topsoil removal.
- C. Locate, identify, and protect utilities that remain and protect from damage.
- D. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- E. Protect plants, lawns, rock outcroppings, and other features to remain.
- F. 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.
- G. 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. Install underground warning tape at buried utilities according to Sections 210553, 220553, 230553, and 260553.
- C. See Section 312323 for fill, backfill, and compaction requirements at general excavations.
- D. See Section 312200 for rough and final grading and topsoil replacement requirements.
- E. 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 building volume below grade, footings, pile caps, slabs-on-grade, paving, site structures, and utilities within the building.
- 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, with Editorial Revision.

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 _____.
 - 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 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. Trenches shall not be backfilled until inspections and tests have been performed.
- 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
- C. Place footings and foundations upon undisturbed and firm bottoms. Fill any excess cuts under footings with concrete.

- D. Do not place footings or slabs on frozen ground. Protect bottoms of trenches and excavations with straw or other suitable materials.
- E. Fill to contours and elevations indicated using unfrozen materials.
- F. Employ a placement method that does not disturb or damage other work.
- G. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- H. Maintain optimum moisture content of fill materials to attain required compaction density.
- I. 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.
- J. 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.
- K. Reshape and re-compact fills subjected to vehicular traffic.
- L. 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 Building slabs - 8" below underside of slab with min. 4" #21A C.I.P.
 - 2. Under Walks - 8" below finish grade (4" #21A stone fill minimum under walks).
 - 3. Under other areas (grass) - 4" below finish grade (4" topsoil required).
 - 4. Under Paving - depths as noted on plans or min. 12" below finish surface (8" #21A stone and 4" of asphalt).
 - 5. Under Roadway - M.D.O.T. #25-A C.I.P. pipe bedding to 6" minimum cover above water line, M.D.O.T. #21-A C.I.P., or control density backfill 50-100 P.S.I. to within 8" of underside of existing pavement (8" minimum #25-A C.I.P. to underside of pavement). Concrete/asphalt roadway patching to match existing thickness.
 - 6. Under paving Area at porous fill for pipe bedding (water/storm/sanitary) - M.D.O.T. #25-A C.I.P. to be 3" minimum thickness under pipe, 6" minimum width both sides, with 6" minimum cover over pipe. Fill trench to bottom of stone/paving depth.
 - 7. Under Lawn Area at porous fill for pipe bedding (water/storm/sanitary) - sand C.I.P. to be 3" minimum thickness under pipe, 6" minimum width both sides, with 6" minimum cover over pipe. Fill trench to 4" below finished grade for 4" topsoil required.
 - 8. 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. Building Slab Density Tests - Shall be taken at approximately 15' x 15' grid starting against inside of walls, at all corners, under thickened slabs and other critical areas.
 - 3. 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.

4. 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 separately 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