



## **State of Michigan**

**Department of Technology, Management and Budget  
State Facilities Administration  
Design and Construction Division**

**DCSPEC  
Bidding and Contract Document  
Minor Projects**

**File No. 171/22311.SDW  
Department of Technology, Management  
and Budget  
General Services Building – Switchgear  
Replacement  
7461 Crowner Drive  
Dimondale, Michigan 48821**

December 12, 2024

## BID SUMMARY

**DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
STATE FACILITIES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
3111 W. St. Joseph Street  
Lansing, Michigan 48917**

**Bids must be submitted electronically at:** <https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>

FILE NUMBER 171/22311.SDW	DEPARTMENT/AGENCY DTMB		
CONTRACT TIME(S) 557 Days	PROJECT NAME General Services Building – Switchgear Replacement	Dimondale, MI	
BID OPENING DATE  January 29, 2025, at 2:00 pm ET		FOR AN EXAMINATION OF THE SITE CONTACT:	
SEE SECTION 00100 INSTRUCTIONS TO BIDDERS AND SECTION 00700 GENERAL CONDITIONS PROVIDED WITH THE BIDDING DOCUMENTS. <b>BID: WE PROPOSE TO FURNISH, PERFORM AND COMPLETE THE ENTIRE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS IN CONSIDERATION OF THE BID PRICE (S) STATED BELOW.</b>			
FIRM NAME AND COMPLETE ADDRESS		TELEPHONE NUMBER and E-MAIL ADDRESS	
<input type="checkbox"/> Qualified Disabled Veteran		<b><u>SIGMA VENDOR NUMBER</u></b>	
		<small>(protected information required for processing payments)</small>	
BIDDER'S SIGNATURE AND TITLE	DATE	WITNESS' SIGNATURE	DATE

By signing this bid above, bidder certifies their enclosed Qualified Disabled Veteran and Michigan-Based Business Certifications.

**BASE BID FROM BID SCHEDULE** (Include specified Allowances):

\_\_\_\_\_ Dollars \$ \_\_\_\_\_  
(use words)  (in figures)

A PERFORMANCE BOND AND A PAYMENT BOND ARE REQUIRED FOR ALL BIDS OVER \$50,000.00. EACH BID MUST BE ACCOMPANIED BY A FIVE (5) PERCENT BID GUARANTEE. BUILDERS RISK INSURANCE IS REQUIRED TO BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED IN THE BID DOCUMENTS.

BIDDERS ARE ALSO CAUTIONED TO FAMILIARIZE THEMSELVES WITH ALL OF THE OTHER CONDITIONS OF THE CONTRACT.

Project Scope of Work:

1. The overall scope of work is to replace the existing 3000A; 120/208V switchboard which serves as one of two main services at the General Services Building. Due to the change-out of the existing service, the night-light panel must be replaced and NEC-compliant emergency lighting installed. Work defined in all plans and specifications shall be performed in addition to work defined in this Project Scope of Work.
2. De-energized work shall be performed outside of normal business hours (Monday-Friday, 8:00 a.m.-5:00 p.m. (except State holidays). Contractor shall furnish all premium time and expense required to perform de-energized work.
3. Prior to commencement of work, measure and record phase rotation of all equipment being demolished. Record phase rotation at all distribution panels, panelboards, and motors served from the existing GSB Switchboard #4A.
4. Prior to demolition:
  - A. Measure and record location of all through-floor feeder conduits in GSB SWBD #4A. Measure other through-floor feeder conduits as necessary.
  - B. In order to match the replacement switchboard to the existing transformer, the switchboard manufacturer's field service technicians shall measure the side opening of the transformer enclosure, the location of flexible laminated transformer secondary phase/neutral connectors and braid shunt connectors.
5. Demolish GSB SWBD #4A and other equipment per plans and specifications. Preserve branch circuits and feeders for re-connection to replacement switchboard.
6. Perform maintenance and testing on the two primary (15kV Rated) load break switches located in SWGR A (Rm 002)
7. Perform maintenance and testing on the 1000kVA; 8320/120/208V transformer (T GSB #4A) located in SWGR A (Rm 002).
8. Furnish and install a custom transition piece to connect the existing 1000kVA transformer to the replacement 3000A switchboard.

9. Furnish and install one (1) 3000A; 120/208V; 3 $\Phi$ ; 4W switchboard fully rated for 65,000AIC. The switchboard shall be front accessible only.
10. Furnish and install a custom enclosure to seal the area between the rear of the replacement switchboard and the wall.
11. Furnish and install enclosures as shown on plans, or otherwise required, to extend existing feeders to the new Switchboard GSB MDP #4A.
12. Furnish and install enclosures as shown on plans, or otherwise required, to extend existing feeders to other loads as shown on plans.
13. Furnish and install LED lighting with emergency power packs in SWGR A (Rm 002).
14. A lighting retrofit is required to meet the National Electrical Code due to the demolition of the service entrance switchgear. All night lights served by panels PNL X and PNL ZA shall be replaced. Areas believed to be served by these panels are shown on plans. Replacement of lighting shall be design-build. Contact Michigan Lighting Systems – West, Tony Burgess, 616-821-2598 (no equal) for light fixtures, controls and emergency lighting power supplies.
15. As a separate line item, the contractor shall include in the bid a COPPER SALVAGE DEDUCT to the State of Michigan for copper wire and bus salvaged from this project.

The Bidder must figure its Base Bid on the specified, or Addendum-approved, materials and equipment **only**. No “or equal” or substitution proposals will be permitted after Bid opening, except as provided in the General Conditions.

Addenda: Bidder acknowledges receipt of Addenda: No. \_\_\_ dated: \_\_\_\_\_, No. \_\_\_ dated: \_\_\_\_\_ No. \_\_\_ dated: \_\_\_\_\_

**BID SCHEDULE**

**Base Bid Schedule** - The Bidder will complete the Work and accept as full payment, for the Work items listed, the following Unit Prices and/or Item Bid Prices, as applicable:

Base Bid Item No.	Bid Quantity	Description	Unit Price	Item Bid Price
1		De-energized survey by Electrical Contractor	\$ _____	
2		De-energized survey by Electrical Manufacturer	\$ _____	
3		Demolition	\$ _____	
4		Maintenance & Testing of transformer and Primary Switches	\$ _____	
5		General Demolition	\$ _____	
6		Electrical Power Distribution Equipment	\$ _____	
7		Electrical Power Distribution Installation Labor	\$ _____	
8		Copper Salvage Value	<del>\$ _____</del>	
9		Closeout (6%. See Section 00700, Paragraph 7.1)	\$ _____	
		ALLOWANCE - LIGHTING RETROFIT	\$140,500.00	
		PROVISIONARY ALLOWANCE AMOUNT	\$90,000.00	
<b>TOTAL (This amount should equal the Base Bid amount on the Bid Summary Form)</b>				<b>\$</b>

**Base Bid** (Sum of Item Bid Prices for all Base Bid Items):

\_\_\_\_\_ Dollars \$ \_\_\_\_\_  
 (use words) (in figures)

**Schedule of Unit Prices or Contingent Change Order Prices** - The Bidder shall use this "Schedule" to quote unit prices identified in the bid documents or propose other contingent Change Order prices. The proposed Unit Prices or contingent Change Order prices set forth in this schedule, at the sole discretion of the **Owner**, may, or may not be incorporated into the Contract Documents. The **Owner** reserves the right to negotiate Unit Prices or contingent Change Order prices set forth herein prior to their possible incorporation into the Contract Documents.

<b>Item No.</b>	<b>Bid Quantity</b>	<b>Description</b>	<b>Unit Price</b>	<b>Item Bid Price</b>
<b>1</b>	<b>1 Hour</b>	<b>Labor – Straight Time</b>		
<b>2</b>	<b>1 Hour</b>	<b>Labor – Overtime (Sat. Sun.)</b>		
<b>3</b>	<b>1 Hour</b>	<b>Labor – Overtime Sunday</b> (If different than Sat. Sun. rate in item No. 2)		
	<b>1-Hour</b>	<b>Labor – Overtime National Holidays</b>		

**DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET**  
**State Facilities Administration**  
**Design & Construction Division**

**Qualified Disabled Veteran (QDV)**  
**Business Representation**

'Qualified Disabled Veteran,' means a business entity that is 51% or more owned by one or more veterans with a service-connected disability.

'Qualified Disabled,' means a business entity that is 51% or more owned by one or more with a service-connected disability.

The vendor represents that it IS \_\_\_\_\_, a qualified disabled veteran.

The contractor represents and warrants that the company meets the above (when checked) and has attached supporting documentation per the following:

Each bid requesting the Qualified Disabled Veterans (QDV) preference, in accordance with Public Act 22 of 2010, MCL 18.1241.3 shall include a DD214 Proof of Service and Discharge, a Veterans Administration rating decision letter, proof of disability (if the disability is not indicated on the DD214), and appropriate legal documents setting forth the 51% natural persons QDV ownership.

**Fraudulent Certification as a Qualified Disabled Veteran may result in debarment under MCL 18.264.**

**Certification of a Michigan Based Business**

(Information Required Prior to Contract Award for Application of State Reciprocity Provisions)

To qualify as a Michigan Based Business:

Vendor must have, during the 12 months immediately preceding this bid deadline:

or

If the business is newly established, for the period the business has been in existence, it has:

(Check all that apply):

- Filed a Michigan single business tax return showing a portion, or all the income tax base allocated or apportioned to the State of Michigan pursuant to the Michigan Single Business Tax Act, 1975 PA 228, MCL 208.1 – 208.145: or
- Filed a Michigan income tax return showing income generated in or attributed to the State of Michigan; or
- Withheld Michigan income tax from compensation paid to the bidder's owners and remitted the tax to the Department of Treasury; or

I certify that **I have personal knowledge** of such filing or withholding, that it was more than a nominal filing for the purpose of gaining the status of a Michigan business, and that it indicates a significant business presence in the state, considering the size of the business and the nature of its activities.

I authorize the Michigan Department of Treasury to verify that the business has or has not met the criteria for a Michigan business indicated above and to disclose the verifying information to the procuring agency.

Bidder shall also indicate one of the following:

- Bidder qualifies as a Michigan business (provide zip code: \_\_\_\_\_)
- Bidder does not qualify as a Michigan business (provide name of State: \_\_\_\_\_).
- Principal place of business is outside the State of Michigan, however service/commodity provided by a location within the State of Michigan (provide zip code: (\_\_\_\_\_)).

Fraudulent Certification as a Michigan business is prohibited by MCL 18.1268 § 268. A BUSINESS THAT PURPOSELY OR WILLFULLY SUBMITS A FALSE CERTIFICATION THAT IT IS A MICHIGAN BUSINESS OR FALSELY INDICATES THE STATE IN WHICH IT HAS ITS PRINCIPAL PLACE OF BUSINESS IS GUILTY OF A FELONY, PUNISHABLE BY A FINE OF NOT LESS THAN \$25,000 and subject to debarment under MCL 18.264.

**BID BOND**

**BID SUBMITTED ON** the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Bid Security is in the form of a Bid Bond \_\_\_\_\_ Bid Bond form has been duly executed \_\_\_\_\_; or

A Bank Certified or Cashier's check \_\_\_ or Money Order \_\_\_ is attached to this page \_\_\_\_ (***If Bid Security is by Check or Money Order, the original check or money order must be delivered to the issuing office before Bid Due Time. ALL other SIGMA bid submittals are also still to be made.***)

**If the Bidder is an Individual:**

Name of Individual: \_\_\_\_\_

Name & Title of Person Authorized to sign: \_\_\_\_\_

Signature: \_\_\_\_\_  
(If not the Individual, Attach Power of Attorney) Date

Doing Business as: \_\_\_\_\_

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

County of registration \_\_\_\_\_

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

**If the Bidder is a Partnership:**

By: \_\_\_\_\_  
(True Name of the Partnership)

Partner Authorized to Sign \_\_\_\_\_ Date

Signature: \_\_\_\_\_  
(Attach evidence of Authority to sign) Date

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

County of registration \_\_\_\_\_

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

**If the Bidder is a Corporation:**

By: \_\_\_\_\_  
(Legal Corporation Name)

Name & Title of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_  
(Attach evidence of Authority to sign) Date

Name & Title of Officer Attesting: \_\_\_\_\_

Signature: \_\_\_\_\_ Date

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

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

(State of Incorporation): \_\_\_\_\_

**If The Bidder is A Joint Venture:** JOINT VENTURE SIGNATURES MUST BE AS PROVIDED IN INSTRUCTIONS TO BIDDERS. EACH JOINT VENTURER SIGNING THE BID MUST SIGN IN THE MANNER INDICATED FOR AN INDIVIDUAL, A PARTNERSHIP OR A CORPORATION. IF MORE THAN TWO JOINT VENTURERS OF THE SAME TYPE ARE INCLUDED, USE ADDITIONAL PAGES. JOINT VENTURE STATE OF INCORPORATION \_\_\_\_\_ OR COUNTY OF REGISTRATION \_\_\_\_\_

## POST-BID SUBMITTALS

The PSC will request this submittal after bid opening. Complete and submit these items within two business days after the request.

**BIDDER'S EXPERIENCE MODIFICATION RATING (EMR)** \_\_\_\_\_

Attach letter of explanation if the Bidder does not have an EMR.

**PROPOSED PROJECT SUPERINTENDENT** \_\_\_\_\_

Attach brief resume or list of similar successful projects.

**LIST OF SIMILAR PROJECTS COMPLETED BY THE BIDDER**

Please list at least three completed projects of similar size and complexity to the project being bid, with reference contact information

**REFERENCE #** \_\_\_\_\_

Owner: \_\_\_\_\_

Project/Contract Name: \_\_\_\_\_

Location of Project/Contract: \_\_\_\_\_

Contract Price: \_\_\_\_\_ Project/Contract Started: \_\_\_\_\_ Completed: \_\_\_\_\_

Owner's Representative (Name and Telephone): \_\_\_\_\_

Scope of Project/Contract: \_\_\_\_\_

**REFERENCE #** \_\_\_\_\_

Owner: \_\_\_\_\_

Project/Contract Name: \_\_\_\_\_

Location of Project/Contract: \_\_\_\_\_

Contract Price: \_\_\_\_\_ Project/Contract Started: \_\_\_\_\_ Completed: \_\_\_\_\_

Owner's Representative (Name and Telephone): \_\_\_\_\_

Scope of Project/Contract: \_\_\_\_\_

**REFERENCE #** \_\_\_\_\_

Owner: \_\_\_\_\_

Project/Contract Name: \_\_\_\_\_

Location of Project/Contract: \_\_\_\_\_

Contract Price: \_\_\_\_\_ Project/Contract Started: \_\_\_\_\_ Completed: \_\_\_\_\_

Owner's Representative (Name and Telephone): \_\_\_\_\_

Scope of Project/Contract: \_\_\_\_\_



**POST BID SUBMITTALS: LIST OF SUBCONTRACTORS**

The Apparent Low Bidder shall nominate for each Division of Specification and/or trade category, the Subcontractor to be awarded Sub-agreements, including the apparent Low Bidder if work is to be self-performed. Nominated subcontractors shall not be removed, replaced, or added to except by written request for good reason, subject to Owner acceptance.

Division, Specification Section and/or Trade	Nominated Subcontractor(s)	Amount of Subcontract
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____
11. _____	_____	_____
12. _____	_____	_____
13. _____	_____	_____
14. _____	_____	_____

The undersigned Apparent Low Bidder \_\_\_\_\_ certifies that all the information and data furnished in this List of Subcontractors are current, accurate and complete as of the date stated below.

Signed by: \_\_\_\_\_ Name \_\_\_\_\_ Title \_\_\_\_\_

on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

PERFORMANCE BOND

SURETY COMPANY REFERENCE No. \_\_\_\_\_

That "the Contractor," \_\_\_\_\_, a corporation \_\_\_\_, individual \_\_\_\_, partnership \_\_\_\_, joint venture \_\_ of the State of \_\_\_\_\_, qualified to do business in the State of Michigan, as Principal, and "the Surety," \_\_\_\_\_, of the State of \_\_\_\_\_, as surety, are held and bound unto the State of Michigan, "the Owner," as Obligee, in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment of which the Contractor and Surety bind themselves, their respective heirs, successors, legal representatives and assigns, jointly and severally, in compliance with 1963 PA 213, as amended, MCL 129.201 et seq.

The Contractor has entered into "the Contract" with the Owner for \_\_\_\_\_, "the Work," covered by the Contract Documents, which are incorporated into this Performance Bond by this reference.

If the Contractor faithfully performs and fulfills all the undertakings, covenants, terms, conditions, warranties, indemnifications and agreements of the Contract Documents within the Contract Time (including any authorized changes, with or without notice to the Surety) and during the Correction Period, and if the Contractor also performs and fulfills all the undertakings, covenants, terms, conditions, warranties, indemnifications and agreements of any and all duly authorized modifications of the Contract Documents, then THIS OBLIGATION IS VOID, OTHERWISE TO REMAIN IN FULL FORCE AND EFFECT.

A. No change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents (including addition, deletion, or other revision) releases the Surety of its obligations under this Section 00610 Performance Bond. The Surety expressly waives notice of any such change in Contract Price or Contract Time, "or equal" or substitution or

modification of the Contract Documents (including addition, deletion, or other revision).

B. This Performance Bond must be solely for the protection of the Owner and its successors, legal representatives or assigns.

C. It is the intention of the Contractor and Surety that they must be bound by all terms and conditions of the Contract Documents (including, but not limited to General Conditions and this Performance Bond). However, this Performance Bond is executed pursuant to 1963 PA 213, as amended, MCL 129.201 et seq., and if any provision(s) of this Performance Bond is/are illegal, invalid, or unenforceable, all other provisions of this Performance Bond must nevertheless remain in full force and effect, and the Owner must be protected to the full extent provided by 1963 PA 213, as amended, MCL 129.201 et seq.

IMPORTANT: The Surety must be authorized to do business in the State of Michigan by the Department of Licensing and Regulatory Affairs, must be listed on the current U.S. Department of the Treasury Circular 570, and, unless otherwise authorized by the Owner in writing, must have at least an A- Best's rating and a Class VII or better financial size category per current A. M. Best Company ratings.

Name, Address and Telephone of the Surety:

Address and Telephone of Agent, who is either a resident of, or whose principal office is maintained in, the State of Michigan

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

THE CONTRACTOR: (Print Full Name and Sign) By: \_\_\_\_\_

WITNESS \_\_\_\_\_ Name & Title: \_\_\_\_\_ Telephone No. \_\_\_\_\_

THE SURETY: (Print Full Name and Sign) Agent: \_\_\_\_\_

WITNESS \_\_\_\_\_ Attorney-in-Fact: \_\_\_\_\_ Telephone No. \_\_\_\_\_

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

**PAYMENT BOND**  
**SURETY COMPANY REFERENCE No.** \_\_\_\_\_

“the **Contractor**,” \_\_\_\_\_, a corporation \_\_\_\_\_, individual \_\_\_\_\_, partnership \_\_\_\_\_, joint venture \_\_\_\_\_ of the State of \_\_\_\_\_, qualified to do business in the State of Michigan, as Principal, and “the **Surety**,” \_\_\_\_\_, of the State of \_\_\_\_\_, as surety, are held and bound unto the State of Michigan, “the **Owner**,” as Obligee, in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment of which the **Contractor** and Surety bind themselves, their respective heirs, successors, legal representatives and assigns, jointly and severally, in compliance with 1963 PA 213, as amended, MCL 129.201 et seq.

The **Contractor** has entered into “the Contract” with the **Owner** for \_\_\_\_\_, “the Work,” covered by the Contract Documents, which are incorporated into this Payment Bond by this reference.

If the **Contractor** promptly pays all claimants supplying labor or materials to the **Contractor** or to the **Contractor’s** Subcontractors in the prosecution of the Work, then THIS OBLIGATION IS VOID, OTHERWISE TO REMAIN IN FULL FORCE AND EFFECT.

hereby expressly waives notice of any such change in Contract Price or Contract Time, “or equal” or substitution or modification of the Contract Documents (including addition, deletion, or other revision).

A. All rights and remedies on this Payment Bond are solely for the protection of all claimants supplying labor and materials to the **Contractor** or the **Contractor’s** Subcontractors in the prosecution of the Work and must be determined in accordance with Michigan Law.

C. It is the intention of the **Contractor** and Surety that they must be bound by all terms and conditions of the Contract Documents (including, but not limited to this Payment Bond). However, this Payment Bond is executed pursuant to 1963 PA 213, as amended, MCL 129.201 et seq., and if any provision(s) of this Payment Bond is/are illegal, invalid, or unenforceable, all other provisions of this Payment Bond must nevertheless remain in full force and effect, and the **Owner** must be protected to the full extent provided by 1963 PA 213, as amended, MCL 129.201 et seq.

B. No change in Contract Price or Contract Time, “or equal” or substitution or modification of the Contract Documents (including addition, deletion, or other revision) must release the Surety of its obligations under this Payment Bond. The Surety

**IMPORTANT:** The Surety must be authorized to do business in the State of Michigan by the Department of Licensing and Regulatory Affairs, must be listed on the current U.S. Department of the Treasury Circular 570, and, unless otherwise authorized by the **Owner** in writing, must have at least an A– Best’s rating and a Class VII or better financial size category per current A. M. Best Company ratings.

Name, Address and Telephone of the Surety:

Address and Telephone of Agent, who is either a resident of, or whose principal office is maintained in, the State of Michigan

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

THE **CONTRACTOR**: (Print Full Name and Sign) By: \_\_\_\_\_

WITNESS \_\_\_\_\_ Name & Title: \_\_\_\_\_  
Telephone No. \_\_\_\_\_

THE **SURETY**: (Print Full Name and Sign) Agent: \_\_\_\_\_

WITNESS \_\_\_\_\_ Attorney-in-Fact: \_\_\_\_\_  
Telephone No. \_\_\_\_\_

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

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ELECTRICAL ONE-LINE DIAGRAM  
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**DRAWINGS:**

TS  
E0.0  
E1.0A  
E1.0B  
ED2.0  
ED2.1  
ED5.1  
ED5.2  
E1.0A  
E1.0B  
E2.0  
E2.1  
E3.0  
E5.1  
E5.2  
E5.2A  
E5.2B

## **DIVISION 00**

# **BIDDING REQUIREMENTS AND CONTRACT CONDITIONS**

## SECTION 00010 PRE-BID INFORMATION

1. **Invitation to Bid (ITB)** – Your firm is invited to submit a Bid. The State of Michigan as the Owner will receive **bids electronically through the SIGMA VSS website at <https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>, for General Services Building – Switchgear Replacement until **2:00 p.m., ET, on January 29, 2025****. The State reserves the right to cancel this Invitation to Bid (ITB) or change the date and time for submitting Bids by announcing same at any time before the established date and time for Bid opening. Bids must remain open for acceptance by the Owner for no less than the Bid hold period. Contractor may agree to extend the Bid hold period. However, any such extension must be based upon no increase in the Bid Price and/or Contract Time.
2. **Work Description** – The Work, General Services Building – Switchgear Replacement, DTMB File No. 171/22311.SDW includes, but is not necessarily limited to: The Project Scope of Work as summarized in the Bid Summary above. The site is located at 7461 Crowner Drive; Dimondale, MI, as shown on the Drawings.
3. **Bidding Documents** – Sets of Bidding Documents may be obtained at:

<https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService> .

4. **Bid Security** – Each Bid must enclose a duly executed Bid Security, in the amount of five percent (5%) of the Bidder's Base Bid, paid to the "State of Michigan" in the form of a certified or cashier's check or money order drawn upon a bank insured by an agency of the Federal Government, or a bid bond signed by both the Contractor and authorized surety company. *If Bid Security is by check or money order, such certified or cashier's check or money order must be delivered in original copy before the Bid Due Time to:*

State Facilities Administration  
Design & Construction Division  
3111 W. St. Joseph Street  
Lansing, Michigan 48917

All other Bid information must be submitted via SIGMA as per standard bidding procedure

5. **Pre-Bid Conference** – **A mandatory pre-bid conference will be held at The General Services Building; 7461 Crowner Dr; Dimondale, MI on January 15, 2025 at 9:00 a.m. ET**. A tour will be held on the same day, starting immediately after the meeting. All prospective Bidders are encouraged to attend the tour, if held. Other parties interested in the Work are encouraged to attend the tour. Addenda may be issued, in response to issues raised at the pre-bid conference and tour, or as the Owner and/or Professional may otherwise consider necessary.

The purpose of the pre-bid conference and inspection is to answer questions and provide an inspection tour of the Project site at the scheduled time on the day of the meeting. A representative will be available to assist the Contractors. Other inspection visits may be allowed if needed. Individuals needing special services to fully participate in the meeting due to a disability may contact Clinton Klotz at (517) 204-7911.

~~FOR CORRECTIONAL FACILITIES ONLY: All contractor/vendor representatives attending a Pre-Bid Walk Through Meeting must submit a Vendor/Contractor LEIN Request five business days prior to the meeting date, (LEIN Request For CAJ-1037 attached to Bid posting). Send the LEIN Request form, filled out and signed, by email to [SmithD76@michigan.gov](mailto:SmithD76@michigan.gov) & [FrostS1@michigan.gov](mailto:FrostS1@michigan.gov). The email "Subject" must include (Facility Name, Project Name, Date & Time of Pre-Bid Walk Through Meeting).~~

6. **SIGMA VENDOR NUMBER:** If you are bidding a State job for the first time, visit the State of Michigan SIGMA website, <https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>, and follow the "SOM VSS User Guide for New Vendors" instructions, located under Forms and Reference Documents. Registration is required for bid submission. **Do not wait until the last minute to submit a proposal**, as the SIGMA system requires the creation of an account and entry of certain information, in addition to uploading and submitting the materials. The SIGMA system **will not** allow a proposal to be submitted after the proposal deadline, even if a portion of the proposal has been updated.

Questions on how to submit information or how to navigate in the SIGMA VSS system can be answered by calling **(517) 373-4111 or (888) 734-9749**.

7. **Equal Employment Opportunity** – Covenants to not discriminate in employment by Contractors, Subcontractors and Suppliers required by Law are contained in Instructions to Bidders and General Conditions and are applicable to the Work and any Sub-agreement under the Contract.
8. **Contract Times** – The Contract Times and the associated liquidated damages are specified in the Contract.
9. **Contact Person** – All requests or inquiries concerning the Bidding Documents, or the Work must be addressed to: Robert B. Arbetman P.E. 616-456-5227 Ext 103, [rarbetman@centuryae.com](mailto:rarbetman@centuryae.com). Questions will be accepted until **January 20, 2025 at 12:00 Noon ET**.

**10. Award** – Subject to any agreed extension of the period for holding Bids, Bids must remain valid for acceptance by the Owner for 60 Calendar Days after the date of Bid opening. In addition, the Owner expressly reserves the right, within the Owner's sole discretion, to reject any or all Bids, to waive any irregularities, to issue post-Bid Addenda and re-bid the Work without re-advertising, to re-advertise for Bids, to withhold the award for any reason the Owner determines and/or to take any other appropriate action.

**11. Performance and Payment Bonds** – A performance bond and a payment bond are required for all contracts over \$50,000.00.

**END OF SECTION 00010**



## SECTION 00100 INSTRUCTIONS TO BIDDERS

- 1. PREPARATION OF BID:** Execute Bid fully and properly. Bid Summary Form (DTMB -0401D) and Bid Form Attachments must be used and completely filled out for the Bid to be considered responsive and meeting the requirements of the contract solicitation. All Bid prices must be printed or typed in both words and figures.
- 2. BID CHECKLIST:** Submit Bid Summary Form with original signatures plus Bid Form Attachments in accordance with the electronic bidding procedures on the SIGMA VSS website.

A complete Bid will consist of the following forms, which are included immediately following the Bid Summary Form:

### **Bids      SUBMIT THESE Bid Forms and Bid Form Attachments**

- All Bids          **Signed** and completed Bid Summary Form (DTMB-0401D).
- Bid Schedule.
- Qualified Disabled Veteran (QDV) Business Representation.
- Bid Security in the amount of 5% of Base Bid Price.

*If Bid Security is by check or money order, such certified or cashier's check or money order must be delivered in original copy before the Bid Due Time to:*

State Facilities Administration  
Design & Construction Division  
3111 W. St. Joseph Street  
Lansing, Michigan 48917

*All other Bid information must be submitted via SIGMA as per standard bidding procedure*

- Signature Authorization or copy of the partnership agreement if signed by all partners.
- Byrd Anti-Lobbying Certification (Only when Federal Provisions Addendum is included)
- Other Forms;
- Over \$50K          Forms listed under All Bids.
- Payment and Performance Bond (upon issuing the Notice of Award).
- Over \$100K          Forms listed under All Bids.
- Certification of a Michigan Based Business.
- Payment and Performance Bond (upon issuing the Notice of Award).
- Over \$250K          Forms listed under All Bids.
- Certification of a Michigan Based Business.
- Payment and Performance Bond (upon issuing the Notice of Award).

### **Apparent Low Bidders ONLY (upon request from the Professional)**

- Experience Modification Rating (EMR), or a letter stating why the Bidder does not have one.
- Identification of the proposed project superintendent, with a resume or list of similar projects handled by that individual.
- A list of at least three (3) projects completed by the Bidder, within the last three (3) years of similar size and complexity, with contact information for references for each.
- A list of nominated sub-contractors, including proposed self-performed categories, for each Division/Trade/etc.

- 3. BID SUBMISSION:** Bids must be submitted electronically through the SIGMA VSS website at <https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>.

- 4. BID GUARANTEE:** Each proposal must be accompanied by either a bank certified or cashier's check on an open, solvent bank or a bid bond with an authorized surety company (the surety must be listed on the current U.S. Department of the Treasury Circular 570) in the amount of five percent of the base bid payable to the State of Michigan, as a guarantee of good faith. If the

successful Bidder fails to furnish satisfactory bonds and insurance within fifteen Calendar Days after Notice of Award, such guarantee must be forfeited to the State as liquidated damages. If Bid Security is by check or money order, such certified or cashier's check or money order must be delivered in original copy before the Bid Due Time to the Issuing Office. The bid security, exclusive of bid bonds, of all unsuccessful Bidders will be returned when an award is made or upon substitution of a bid bond. The bid security of the successful Bidder will be returned when the performance bond and labor and material bond are approved.

**5. Left Blank Intentionally.**

**6. MICHIGAN BASED BUSINESS CERTIFICATION:** All Bidders submitting Bids in excess of \$100,000.00 must complete the Certification of Michigan Based Business. This information will determine if a Bidder qualifies as a "Michigan" business for purposes of application of reciprocity where applicable.

**7. POST-BID SUBMITTAL:** For all projects, the Professional may request a Post-Bid Submittal from the Apparent Low Bidders. The Apparent Low Bidders must submit to the Professional, within **two** Business Days after receipt of the Professional's request,

- Experience Modification Rating (EMR), or a letter stating why the Bidder does not have one.
- Identification of the proposed project superintendent with a resume or list of similar projects managed by that individual.
- A list of at least three (3) projects completed by the Bidder, within the last three (3) years of similar size and complexity, with contact information for references for each.

**Failure to provide the submittals may disqualify the Bid.**

**8. SIGNATURES:** All Bids, notifications, claims, and statements must be signed as follows:

- (a) **Corporations:** Signature of official must be accompanied by a certified copy of the Resolution of the Board of Directors authorizing the individual signing to bind the corporation.
- (b) **Partnerships:** Signature of one partner must be accompanied by a signed copy of the legal document (e.g., Power of Attorney or partnering agreement) authorizing the individual signing to bind all partners. If Bid is signed by all partners, no authorization is required.
- (c) **Individual:** No authorization is needed. Each signature must be witnessed.

**9. BID PRICES:** The Bidder's Base Bid and Alternate Bid prices must include, and payment for completed Work will compensate in full for: all services, obligations, responsibilities, management, supervision, labor, materials, devices, equipment, construction equipment, general conditions, permits, patent fees and royalties, testing, inspection and approval responsibilities, warranties, temporary facilities, small tools, supplies, Bonds, insurance, taxes, mobilization, close-out, overhead and profit and all connections, appurtenances and any other incidental items of any kind or nature, as are necessary to complete the Work, in a neat, first quality, workmanlike and satisfactory manner in accordance with the Drawings and Specifications and as otherwise required to fulfill the requirements of the Bidding Documents. For each Cash Allowance item, the Bidder must include, within the Bid, all labor costs, construction equipment costs, insurance and Bond premiums and other general conditions costs and Fees (Bidder's and Subcontractors') to complete Work associated with the material, equipment, or other designated item to be furnished under the Cash Allowance. For each Provisionary Allowance, the Bidder must include, within the Bid, insurance, premiums (not recoverable as labor burden) and Bond premiums required to complete Work that may be ordered under a Provisionary Allowance.

**10. INSPECTION OF BIDDING DOCUMENTS AND SITE CONDITIONS:** The Bidder must carefully review and inspect all documents referenced and made part of this ITB, site conditions, all applicable statutes, regulations, ordinances, and resolutions addressing or relating to the goods and services under this contract. Failure to do so or failure to acquire clarifications and answers to any discovered conflicts, ambiguities, errors, or omissions in the Bidding Documents will be at the Bidder's sole risk.

**11. SAFETY REQUIREMENTS AND LAWS:** The Bidder awarded the Contract must comply with all applicable federal, state, and local Laws including health and safety regulations, environmental protection, permits and licensing.

**12. INTERPRETATIONS AND ALTERATIONS TO THE BID AND BIDDING DOCUMENTS:** All requests for clarification or interpretation of the Bidding Documents, all proposals for any modifications to the Bidding Documents, all requests for information and all other questions or inquiries about the Bidding Documents and/or the Work shall be submitted in writing to the Contact Person identified in the Bid Documents. Requests or inquiries received less than seven Calendar Days before the date of Bid opening will be answered only if (a) the response can be given through an Addendum made available at least seventy-two hours before Bid opening (counting Business Days only), (b) the Bid opening is postponed by Addendum, or (c) the Work is rebid without readvertising following the issuance of post-Bid Addenda.

Bidders must not rely upon any oral statements or conversations regarding interpretations, clarifications, corrections, additions, deletions or other revisions or information to the Bidding Documents. Any addition, limitation or provision made with or attached to the Bid may render it non-responsive and/or irregular and be a cause for rejection. The Owner reserves the right to issue a post-Bid Addendum after opening the Bids and set a new date for the receipt and opening of sealed Bids. The Bidder

acknowledges that any quantities of Unit Price Work given in this ITB are approximate only and payments will be made only for actual quantities of Unit Price Work completed in accordance with the Contract Documents.

- 13. MODIFICATION OF BID:** The entire bid must be resubmitted on the SIGMA VSS website.
- 14. BID WITHDRAWAL:** Except for timely filed claims of mathematical or clerical errors granted by the State, no Bid may be withdrawn within sixty Calendar Days after the Bid Opening time and date or before the Bid expiration date without forfeiting Bid security. The request to withdraw a Bid due to error must be submitted in writing along with the supporting documents within two Business Days after the date of Bid Opening. The claim must describe in detail the error(s), include a signed affidavit stating the facts of the alleged error(s) and request that the Bidder be released from its Bid. The review of the claim and its supporting documents by the State is only for the purpose of evaluating the Bidder's request and must not create duty or liability on the State to discover any other Bid error or mistake. The sole liability of any Bid error or mistake rests with Bidder.
- 15. OBJECTION TO THE AWARD:** A Bidder may file a written protest with the Director-DCD to object to the Apparent Low Bidder. This objection must be filed within seven Calendar Days after the date of Bid opening and must describe in detail the basis for the protest and request a determination. The Director-DCD will either dismiss or uphold the protest and notify the protestor within ten Calendar Days after receipt of the written protest.
- 16. BID IRREGULARITIES:** The following irregularities on any Bid Form or Bid Form Attachment must be resolved as follows:
- (a) between SIGMA entry and signed Bid Summary attachment, the signed Bid Summary attachment will be used.
  - (b) between words and figures, the words must be used.
  - (c) between any sum, computed by the Bidder, and the correct sum, the sum computed by the Bidder must be used.
  - (d) between the product, computed by the Bidder, of any quantity and Bid Unit Price and the correct product of the Unit Price and the quantity of Unit Price Work, the product extended by the Bidder must be used.
  - (e) between a stipulated Allowance and the amount entered, the Allowance must be used.
  - (f) any mobilization pay item exceeding the maximum specified must be ignored and the Bid must remain unchanged.
  - (g) if any Bidder fails or neglects to bid a Unit Price for an item of Unit Price Work but shows a "Bid Price" for that item, the missing unit price must be computed from the respective quantity and the Item Bid Price shown.
  - (h) if any Bidder fails or neglects to show a "Bid Price" for an item of Unit Price Work but bids a unit price, the missing Bid Price must remain as "zero"; and
  - (i) if any Bidder fails or neglects to enter a Bid Price in both words and figures, the Bid Price printed or typed, whether in words or figures, must be used.
- 17. CERTIFICATION:** The bidder certifies to the best of its knowledge and belief that, within the past three (3) years, the bidder is an officer of the bidder, or an owner of a 25% or greater interest in the bidder:
- (a) Has not been convicted of a criminal offense incident to the application for or performance of a contract or subcontract with the State of Michigan or any of its agencies, authorities, boards, commissions, or departments.
  - (b) Has not had a felony conviction in any state (including the State of Michigan).
  - (c) Has not been convicted of a criminal offense which negatively reflects on the bidder's business integrity, including but not limited to, embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property, negligent misrepresentation, price-fixing, bid rigging, or a violation of state or federal anti-trust statutes.
  - (d) Has not had a loss or suspension of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.
  - (e) Has not been terminated for cause by the Owner.
  - (f) Has not failed to pay any federal, state, or local taxes.
  - (g) Has not failed to comply with all requirements for foreign corporations.
  - (h) Has not been debarred from participation in the bid process pursuant to Section 264 of 1984 PA 431, as amended, MCL 18.1264, or debarred or suspended from consideration for award of contracts by any other State or any federal Agency.
  - (i) Has not been convicted of a criminal offense or other violation of other state or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, that in the opinion of DTMB indicates that the bidder is unable to perform responsibly or which reflects a lack of integrity that could negatively impact or reflect upon the State of Michigan, including but not limited to, any of the following offenses under or violations of:
    - 1. The Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.
    - 2. A persistent and knowing violation of the Michigan Consumer Protection Act, 1976 PA 331, MCL 445.901 to 445.922.
    - 3. A finding that the bidder failed to pay the wages and/or fringe benefits as required by applicable law.
    - 4. Repeated or flagrant violations of 1978 PA 390 MCL 408.471 to 408.490 (law relating to payment of wages and fringe benefits).
    - 5. A willful or persistent violation of the Michigan Occupational Health and Safety Act, 1974, PA 154, MCL 408.10001 to 408.1094, including: a criminal conviction, repeated willful violations that are final orders, repeated violations that are final orders, and failure to abate notices that are final orders.
    - 6. A violation of federal or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.
    - 7. Been found in contempt of court by a Federal Court of Appeals for failure to correct an unfair labor practice as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U. s. C. 158 (1980 PA 278, as amended, MCL 423.321 et seq).
  - (j) Is not an Iran-Linked Business as defined in MCL 129.312.

A false statement, misrepresentation, or concealment of material facts on this certification may be grounds for rejection of this proposal or termination of the award and may be grounds for debarment.

- 18. REJECTION OF BID:** The Bidder acknowledges the right of the Owner to reject any Bids and to waive any informality, defects or irregularity in any Bid received. In addition, the Bidder recognizes the right of the Owner to reject a Bid if:
- the Bid is in any way incomplete or irregular.
  - the Bidder, Subcontractor or Supplier is not responsible as determined by the Owner.
  - the Bidder's performance as a Contractor was unsatisfactory under a prior Contract with the Owner for the construction, repair, modification, or demolition of a facility with the Owner, or under any other Contract, which was funded, directly or indirectly, by the Owner.
  - there are reasonable grounds for believing that collusion or unlawful agreements exists between any Bidders, that a Bidder is interested in more than one Bid, or that the Bid is not genuine.
  - the Bid exceeds the funds available.
- 19. MATERIALS AND EQUIPMENT SUBSTITUTION:** Any Bidder wishing to use manufacturers or materials other than those specified must submit a written request to the Professional not later than seven days before due date for Bids. Request must be accompanied by product data to permit evaluation and comparison with specified products or materials. The Person submitting the request will be responsible for its prompt delivery. The Professional and the Owner will examine and evaluate the product data and if found acceptable, an Addendum will be issued and mailed or delivered to each Person who has received a set of Drawings and Specifications. All Addenda issued must be made a part of the Contract requirements. Contractor will be responsible for any extra work and expense incurred to satisfactorily and completely incorporating each substitute product into the Project.
- 20. MICHIGAN PRODUCTS AND RECYCLED PRODUCTS:** All Contractors and Suppliers are encouraged to provide Michigan-made products and/or recycled products and/or green products and/or environmentally friendly products whenever possible where price, quality, and performance are equal to, or superior to, non-Michigan products and the requirements of the Contract Documents. The Contractor will be required to use alternatives to landfills for waste disposal such as reuse or recycle of asphalt, bricks, concrete, masonry, plastics, paint, glass, carpet, metals, wood, drywall, insulation, and any other waste materials to the extent practical.
- 21. PRE-AWARD PRODUCT SUBMITTALS:** If requested, the Apparent Low Bidders must submit a summary of preliminary technical data on each product listed in plans and specifications. The Apparent Low Bidders will furnish this summary data to the Professional within 96 hours of the Bid Opening. These submittals will be used to evaluate the Bid before the award. Failure to provide the submittals may disqualify the Bid.
- 22. CONTRACT AND CONTRACT AWARD:** The Owner intends to award a Contract to the responsive and responsible best value bidder, except as provided below relative to veteran's preference.
- Determination of the lowest three Bidders shall be based on the sum of the Base Bid and any additive and deductive Alternates the Owner accepts, in the order in which they are listed only. The Owner will accept an Alternate only if all other previously listed Alternates are also accepted unless acceptance by the Owner of Alternates in a different order does not affect determination of the lowest three bidders in any way.
  - The bids will be evaluated for best value based on price and qualitative components by comparing the qualitative components of the three lowest responsive and responsible Bidders. The comparison may also include other Bidders whose bids are within 10% of the lowest responsive and responsible Bidder.
  - If a Qualified Disabled Veteran meets the requirements of the contract solicitation, provides acceptable responses to both Part One and Part Two of the Best Value Construction Bidder Evaluation to achieve a Best Value recommendation and with the veteran's preference is the lowest responsive, responsible, best value Bidder, the Owner will award the contract to the Qualified Disabled Veteran bidder. A determination as to whether the requirements of the bid solicitation have been met will be based solely on the Owner's and Professional's evaluation of the Bid Summary, Bid Attachments, Bidder-provided documents, and interview.
  - For the purpose of evaluating and determining the low responsive bid, 10% of the lowest responsive bid (the bid that would otherwise receive the contract award if the preference were not being considered) will be deducted from all QDV bids. If the low responsive QDV bid, less the 10% preference, is less than the lowest responsive bid, then the QDV bid will be declared the official low responsive bid. The original QDV bid amount will be the basis of the contract award.

**Example:**

Lowest Responsive Bid	\$100,000
Lowest Responsive QDV Bid	\$109,000
Preference (10% of the Lowest Responsive Bid)	\$ 10,000
Lowest Responsive QDV Bid Less Preference	\$ 99,000 (\$109,000 - \$10,000)
<b>Official Low Responsive Bid</b>	<b>\$109,000</b>

22.5 The Apparent Low Bidders will be evaluated for responsiveness and responsibility based on the following:

- Compliance with the bid specifications and requirements.
- The Bidder's financial resources.
- The Bidder's technical capabilities.
- The Bidder's technical experience.
- The Bidder's past performance.
- The Bidder's insurance and bonding capacity.
- The Bidder's business integrity.

Some qualitative components that may be evaluated are:

- Technical approach.
- Quality of proposed personnel.
- Management plans.
- Documentation confirming Qualified Disabled Veteran Status.

22.6 For contracts under \$250,000, best value will primarily be based on the lowest responsive and responsible bid.

**23. CONTRACT TIME; LIQUIDATED DAMAGES:** Work of all trades as specified in the Contract Documents must be completed in 557 calendar days from the date of Notice-to-Proceed except for minor replacement, correction, or adjustment items which do not interfere with the complete operation and utilization of all parts of the Contract Work. This Contract Time is of the essence and liquidated damages for each Calendar Day that expires after this Substantial Completion of the entire Work must be in the amount of \$250.00/day. Liquidated damages are not a penalty, are cumulative and represent a reasonable estimate of the Owner's extra costs and damages, which are difficult to estimate with accuracy in advance.

**24. MOBILIZATION:** If used in the Specifications/Bid schedule, all the up-front costs incurred by the Contractor must be covered by the mobilization. The costs to establish temporary site offices, to obtain required permits for commencing the Work and for bonds and insurance premiums are examples of costs to the Contractor that are covered by mobilization pay item. This cost must not exceed four percent (4%) of the Base Bid, unless otherwise expressly provided in the Bidding Documents.

**25. SOIL EROSION AND SEDIMENTATION CONTROL:** All Work under this Contract must meet the storm water management requirements of the Project and comply with the applicable Soil Erosion and Sedimentation Control (SESC) rules and regulations and specific provisions for same within the Contract Documents. SESC measures will be monitored and enforced by the State Facilities Administration, or another authorized enforcing agency if so delegated, through the review of the Contractor's implementation plans and site inspections. State Facilities Administration or the Professional will notify the Contractor in writing of any violation(s) of the applicable SESC statutes and/or the corrective action(s) undertaken by the Owner and may issue stop work orders. State Facilities Administration has the right to assess a fine to the Contractor for noncompliance with the provisions of the Contract Documents and/or SESC regulations applicable to this Work and fines must be in addition to any other remediation costs or liquidated damages applicable to the Project and may exceed the value of the Contract.

**26. PREVAILING WAGE:** The Bidding Documents include either the attached Appendix V of prevailing rates of wages and fringe benefits for all classes of Construction Mechanics called for in the Bid and resulting Contract, if any, or the attached current prevailing wage determination issued by the U.S. Department of Labor, as applicable depending on the funding source(s).

## END OF SECTION 00100

## SECTION 00120 SUPPLEMENTARY INSTRUCTIONS

The provisions of this Section amend or supplement Section 00100 Instructions to Bidders and those other provisions of the Bidding Requirements that are indicated below. All other Bidding Requirements that are not so amended or supplemented remain in full force and effect.

Items shown in strike-through text are omitted from the contract or otherwise not applicable.

## END OF SECTION 00120

## SECTION 00200 INFORMATION FOR BIDDERS

### 1. UNDERGROUND UTILITIES

Information or data about physical conditions of existing Underground Utilities, which have been used by the Professional in preparing the Bidding Documents, is shown, or indicated in the Drawings and technical Specifications and those Underground Utility drawings itemized immediately below.

### 2. PERMITS, APPROVALS, LICENSES AND FEES

- 2.1 If the Owner has secured or will secure any permits, approvals and licenses and has paid or will pay any associated charges and fees, any such permits, approvals and licenses are itemized in this paragraph:
- 2.2 If any permits, approvals, and licenses itemized above have been obtained by the Owner and the fees have been paid, copies of those permits, approvals, licenses, and corresponding fee receipts, are attached to this Section 00200 Information for Bidders.

Except for any permits, approvals, licenses, and fees identified above, the Contractor shall be responsible for all permits, approvals, licenses, and fees applicable to Work.

### 3. SEQUENCING REQUIREMENTS

Refer to the Technical Specifications, including, but not limited to the General Requirements, for information, data, and criteria on sequences of Work restraints, construction, and maintenance of service to existing facilities, which, if provided, must govern the selection of Work sequences. Each Bidder must be responsible for any conclusions or interpretations the Bidder makes related to the selection of sequences and Means and Methods, based on the technical data made available, and/or those additional investigations or studies made or obtained by that Bidder.

### 4. OTHER PHYSICAL CONDITIONS

- 4.1 The Drawings and technical Specifications and those drawings itemized immediately below contain information or data that have been used in the preparation of the Bidding Documents, and that may be properly considered Authorized Technical Data concerning physical conditions of existing surface and subsurface facilities.

4.1A See Appendix III for SPECIAL PROJECT PROCEDURES.

- 5.2 The reference documents itemized immediately below have not been used in the preparation of the Bidding Documents and are available for review or purchase. Information and data contained in those reference documents, including, but not limited to dimensions, locations and conditions of existing surface and subsurface structures, roadways, piping, raceways, equipment, etc. may not accurately or reliably reflect actual conditions. Neither the Owner nor Professional warrants that this list identifies all existing relevant documents.

5.2A Drawing E3.0 shall be regarded as information covered under Section 00200, Paragraph 5.2.

## END OF SECTION 00200

## SECTION 00700 GENERAL CONDITIONS

1. **Interpretations:** Any requests for clarifications or interpretations of the Contract Documents must be in writing to the Professional, who will issue written clarifications or interpretations as appropriate. If the Contractor believes that such clarification or interpretation justifies an adjustment to the Contract Price/Time, the Contractor must promptly notify the Professional in writing before proceeding with the Work Involved.
- 1.1 **Standards:** The Contract Documents describe the entire Work. The provisions of the Contract Documents must govern over any standard specifications, manual or code of any technical society, organization, or association but, if lower than the standards set by any Law applicable to the Work or the Project, the higher standards must govern. The Contractor's responsibilities extend to cover Subcontractors and Suppliers if liable as a result of their actions or obligations.
- 1.2 **Contract Time Computation:** The time to complete the Work must be made in Calendar Days and must include both the first and last day. The first day is established by the Notice-to-Proceed.
- 1.3 **Technical Specifications and Priority:** The following applies whenever priority is called for in Contract Documents: specifications must govern Drawings; figured dimensions must govern scaled dimensions; detail drawings must govern general drawings; Drawings must govern Submittals.

- 1.4 **Indemnification:** The Contractor is required to defend, indemnify and hold harmless the Owner and the Professional, their employees, agents, servants, and representatives from and against all claims, suits, demands, actions of whatever type and nature and all judgments, costs, losses and damages, whether direct, indirect or consequential including, but not limited to, charges of architects, engineers, attorneys and others and all court, hearing and any other dispute resolution costs arising from:
- (a) any patent or copyright infringement by the Contractor.
  - (b) any damage to the premises or adjacent lands, areas, properties, facilities, rights-of-way, and easements, including loss of use to the business and property of others as a result of Contractor's operations.
  - (c) any bodily injury, sickness, disease or death, or injury to or destruction of property, including loss of use due to or related to the Work and caused in whole or in part by the Contractor or Subcontractor or Supplier's negligence, omissions, or failure to maintain the required insurance and coverage and,
  - (d) a failure by the Contractor to appropriately handle Hazardous Materials for the Work or the Contractor's operations in compliance with the Owner requirements and/or applicable Laws and regulations.

The indemnification obligations are not affected by the limitation on the amount and types of damages, compensation or benefits payable by or for the Contractor or Subcontractor or Supplier under worker's or workman's compensation acts, disability benefit acts or other employee benefit acts.

- 1.5 **Contract Documents Ownership:** The State is the owner of the Contract Documents. The Contractor, Subcontractor or Supplier must not reuse any of the documents on any other Project without prior consent of the State and Professional. The Professional will furnish on behalf of the Owner at no cost to the Contractor, one (1) electronic copy of the Drawings and Project Manual. If the **Contractor**, or the Contractor's Subcontractors or Suppliers request hard copy sets, reproduction of these documents will be the responsibility of the **Contractor**.

## 2. GENERAL PROVISIONS

- 2.1 **Owner:** The Project Director and/or Owner Field Representative will represent the Owner. Neither the Project Director nor the Owner Field Representative has the authority to interpret the requirements of the Contract Documents or to authorize any changes in the Work or any adjustment in Contract Price/Time. The State will provide the necessary easements for permanent structure and permanent changes in existing lands, areas, properties, and facilities. However, the Contractor must obtain, at no increase in Contract Price/Time, permits for any other lands, areas, properties, facilities, rights-of-way, and easements required by the Contractor for temporary facilities, storage, disposal of soil or waste material or any other purpose. The Contractor must submit copies of the permits and written agreements to the Owner. The Contractor must engage a registered land surveyor to establish the necessary reference points and/or base lines for construction and must be responsible for protecting them including benchmarks and Project elevations.
- 2.2 **Professional:** Acting as the Owner's representative during the Contract Time period, the Professional will endeavor to guard the Owner from Defective work and to keep the Owner informed of the progress of the Work. Unless delegated by specific written notice from the Owner, the Professional and the Professional's representatives do not have the authority to authorize any changes in the Work or any adjustment in Contract Price/Time. The On-site Inspections by the Owner Field Representative and/or the Professional do not relieve the Contractor from its obligation to provide the Work in accordance with the Contract Documents or represent acceptance of Defective Work.
- 2.3 **Contractor:** The Contractor must manage, supervise, and direct the Work competently, applying the management, supervision, skills, expertise, scheduling, coordination, and attention necessary to provide the Work in accordance with the Contract Documents with a minimum disturbance to or interference to the business operations on site or adjacent properties. The Contractor must assign and maintain a competent full-time **superintendent** on the Work, as its representative, at all times while Work is being done on site and must not be replaced without the Owner's consent. The DTMB Superintendent Designation [form](#) must be completed by the Contractor and submitted before beginning any work. The Contractor shall enforce good order among its employees and shall not employ on the work any disorderly, intemperate, or unfit persons, or not skilled in the work assigned to them. The Contractor is solely responsible for his Means and Methods, safety precautions and programs related to safety, the Contractor's failure to execute the Work in accordance with the Contract Documents and any act of omissions by the Contractor, Subcontractor or Supplier. The Contractor must **compare Contract Documents for conflicts**, unworkable or unsafe specified Means and Methods and verify against manufacturer's recommendations for installations and handling and must notify the Professional in writing of the discovery of any such conflicts or errors. The Contractor is required to furnish certifications that lines and grades for all concrete work were checked before and after placing concrete, and that final grades are as required by the Contractor Documents. Wherever required, the Contractor must be responsible for all cutting, fitting, drilling, fixing-up, and patching of concrete, masonry, gypsum board, piping and other materials that may be necessary to make in-place Work and dependent Work fit together properly. The Contractor must restore to pre-existing conditions all walks, roadways, paved or landscaped areas and other real and personal property not designated for alteration by the Contract Documents. The Contractor must maintain at the site one copy of safety data sheets (SDS) and one copy of all **as built/Record Documents** in good order and annotated in a neat and legible manner to show:
- (a) all revisions made,
  - (b) dimensions noted during the furnishing and performance of the Work, and

- (c) all deviations between the as-built installation and the Contract Documents, all approved Submittals and all clarifications and interpretations.

The Contractor must maintain and furnish promptly to the Owner and the Professional upon their request **daily field reports and photos** recording the on-site labor force and equipment (Contractor and Subcontractors); materials/equipment received; visits by Suppliers; significant in-progress and completed trade Work within major areas; and other pertinent information. The Contractor is obligated to act to prevent threatened damage, death, injury, or loss without any special instruction in **emergencies** and must give the Owner prompt written notice of any changes in Work resulting from the action taken for review and approval.

- 2.4 **Subcontractors and Suppliers:** The Owner assumes no contractual obligations to anyone other than the Contractor. All trade construction Drawings must be field coordinated before fabrication and/or installation. The Owner reserves the right to reject or revoke, for its convenience, any approved Subcontractor/Supplier. Work performed by any Subcontractor or Supplier must be through an appropriate written agreement that:
- (a) expressly binds the Subcontractor/Supplier to the requirements of the Contract Documents,
  - (b) requires such Subcontractor or Supplier to assume toward the Contractor all the obligations that the Contractor assumes toward the Owner and the Professional, and
  - (c) contains the waiver of rights and dispute resolution provisions.

## 2.5 Prevailing Wages and Access to Payroll Records:

### 2.5.1 Prevailing Wages:

To the extent applicable, Contractor will comply with ~~federal~~ and state (2023 PA 10, MCL 408.1101 to 408.1126) prevailing wage requirements.

State Prevailing Wages-The following provisions apply when 2023 PA 10 applies.

Prevailing Wage and Fringe Benefits--The rates of wages and fringe benefits to be paid to each class of Construction Mechanic by DB Entity and Subcontractors, shall not be less than the wage rates and fringe benefit rates prevailing in the locality in which the work is performed.

Nondiscrimination, Nonretaliation- Contractor or a Subcontractor shall not discharge, discipline, retaliate against, or otherwise discriminate against a Construction Mechanic, or threaten to do any of these things, because the Construction Mechanic reported or was about to report a violation or suspected violation of the act.

Construction Mechanics under this Contract are intended beneficiaries of the contractual prevailing wage, fringe benefit, and nondiscrimination nonretaliation requirements of the Contract. Any such Construction Mechanic aggrieved by failure of a contractor or subcontractor to pay prevailing wages or benefits as specified in the Contract, or by violation of section 7 of 2023 PA 10, in addition to any other remedies provided by law, may bring an action in a court of competent jurisdiction against such contractor or subcontractor for damages or injunctive relief and may be awarded reinstatement or other appropriate relief, and all damages sustained, together with actual costs and attorney fees at trial and on appeal.

Contractor and Subcontractors shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in this Contract and shall keep an accurate record showing the name and occupation of and the actual wages and benefits paid to each Construction Mechanic employed by it in connection with the Contract. This record shall be available for reasonable inspection by the State.

**2.5.2 Payroll:** The Contractor and its Subcontractors must maintain and keep, in accordance with generally accepted accounting principles, records pertaining to the bidding, award and performance of the Work, including, but not limited to certified payroll, employment records and all data used in estimating the Contractor's prices for the Bid, Change Order, proposal or claim. The Owner or its representative must have access to those records, must have the right to interview the Contractor's employees and must be provided with appropriate facilities for the purpose of inspection, audit/review and copying for five years after final payment, termination, or date of final resolution of any dispute, litigation, audit exception or appeal. The payroll and other employment records of workers assigned to the site must contain the name and address of each worker, correct wage classification, rate of pay, daily and weekly number of hours worked, deduction made, and actual wages paid. The Contractor must maintain records that show: (a) the anticipated costs or actual costs incurred in providing such benefits, (b) that commitment to provide such benefits is enforceable, and (c) that the plan or program is financially responsible and has been communicated in writing to the workers affected.

## 3. Bonds and Insurance:

- 3.1 Both the Performance Bond and Payment Bond must remain in effect from the date of Contract Award until final completion of the Work or the end of Correction Period, whichever comes later. The surety bonds required for a Construction Contract will not be accepted by SFA unless the surety bonding company is listed in the current United States Government, Department of Treasury's, Listing of approved sureties (bonding/insurance companies), Department Circular 570. Copies of the current Circular listing may be obtained through the internet web site <https://www.fiscal.treasury.gov/fsreports/ref/suretyBnd/c570.htm>.



Insurers must have an “A-“ A.M. Best Company Rating and a Class VII or better financial size category as shown in the most current A.M. Best Company ratings. Insurance must be provided by insurers authorized by the Department of Insurance and Financial Services (DIFS) to do business as an insurer in Michigan. The insurance company and must attach evidence of the authorization. These certificates must specify the Project File No., Project Title, and a description of the Project. The Contractor agrees that insurance coverage afforded under the policies as such coverage relate to the State under this Contract as determined by the Contractor will not be modified or canceled without at least thirty calendar days prior written notice to the State. The latest A.M. Best’s Key Ratings Guide and the A.M. Best’s Company Reports (which include the A.M. Best’s Ratings) are found at: <http://www.ambest.com>. The Contractor must not perform any part of the Work unless the Contractor has all the required insurance in full force and effect.

- 3.2 The Contractor is required to provide proof of the minimum levels of insurance coverage as indicated below. The purpose of this coverage must be to protect the State from claims which may arise out of or result from the Contractor’s performance of services under the terms of this Contract, whether such services are performed by the Contractor, or by any subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.

The Contractor waives all rights against the State for recovery of damages to the extent these damages are covered by the insurance policies the Contractor is required to maintain pursuant to this Contract. The Contractor also agrees to provide evidence that all applicable insurance policies contain a waiver of subrogation by the insurance company.

All insurance coverages provided relative to this Contract/Purchase Order is PRIMARY and NON-CONTRIBUTING to any comparable liability insurance (including self-insurances) carried by the State.

The Insurance must be written for not less than any minimum coverage herein specified or required by law, whichever is greater. All deductible amounts for any of the required policies are subject to approval by the State.

The State reserves the right to reject insurance written by an insurer the State deems unacceptable.

BEFORE THE CONTRACT IS SIGNED BY BOTH PARTIES and BEFORE THE PURCHASE ORDER IS ISSUED BY THE STATE, THE CONTRACTOR MUST FURNISH TO THE DIRECTOR-DCD CERTIFICATE(S) OF INSURANCE VERIFYING INSURANCE COVERAGE. THE CERTIFICATE MUST BE ON THE STANDARD “ACCORD” FORM. THE CONTRACT OR PURCHASE ORDER NUMBER MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING. All such Certificate(s) are to be prepared by the Insurance Provider and not by the Contractor. All such Certificate(s) must contain a provision indicating that coverages afforded under the policies WILL NOT BE CANCELLED, MATERIALLY CHANGED, OR NOT RENEWED without THIRTY days prior written notice, except for 10 days for non-payment of premium, having been given to the Director-DCD. Such NOTICE must include the CONTRACT NUMBER affected and be mailed to the Project Director.

The Contractor is required to provide the type and amount of insurance below:

- (a) Commercial General Liability Insurance with a limit of not less than \$4,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it must apply separately to this project.

The Contractor must list the State, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as ADDITIONAL INSUREDS on the Commercial General Liability policy.

- (b) Vehicle Liability Insurance for bodily injury and property damage as required by law on any auto including owned, hired, and non-owned vehicles used in the Contractor’s business.

The Contractor must list the State, its departments, divisions, agencies, offices, commissions, officers, employers, and agents as ADDITIONAL INSUREDS on the vehicle liability policy.

- (c) Worker’s disability compensation, disability benefit or other similar employee benefit act with minimum statutory limits.

NOTE:

- (i) If coverage is provided by a State fund or if Contractor has qualified as a self-insurer, separate certification must be furnished that coverage is in the state fund or that Contractor has approval to be a self-insurer.
- (ii) Any citing of a policy of insurance must include a listing of the States where that policy’s coverage is applicable; and
- (iii) This provision must not be applicable where prohibited or limited by Michigan law.

- (d) Employer’s Liability Insurance with the following minimum limits:

\$1,000,000 each accident  
\$1,000,000 each employee by disease  
\$2,000,000 aggregate disease

(e) Pollution Liability Insurance in the amounts of not less than \$1,000,000 per occurrence is required.

- 3.3 **Liability Insurance:** Liability insurance must be endorsed to list as additional insureds the Professional's consultants and agents. Worker's Compensation, Employer's Liability Insurance and all other liability insurance policies must be endorsed to include a waiver of rights to recover from the Owner, Professional and the other additional insureds. The Contractor's liability insurance must remain in effect through the Correction Period and through any special correction periods. For any employee of the Contractor who is resident of and hired in Michigan, the Contractor must have insurance for benefits payable under Michigan's Worker's Compensation Law. For any other employee protected by Worker's Compensation Laws of any other state, the Contractor must have insurance or participate in a mandatory state fund, where applicable, to cover the benefits payable to any such employee. These requirements must not be construed to limit the liability of the Contractor or its insurers. The Owner does not represent that the specified coverage or limits of insurance are sufficient to protect the Contractor's interests or liabilities.
- 3.4 **Builder's Risk Insurance:** Unless indicated otherwise in the bid document, the Contractor will purchase and maintain property insurance for 100% of actual cash replacement value of the insurable Work (minimum amount to be the contract award amount) while in the course of construction, including foundations, additions, attachments, and all fixtures, machinery and equipment belonging to and constituting a permanent part of the building structures. The property insurance also will cover temporary structures, materials and supplies to be used in completing the Work, only while on the building site premises or within five hundred feet of the site. The property insurance insures the interests of the Owner, Contractor and all Subcontractors and Suppliers at any tier as their interest may appear. The property insurance insures against "all risk" of physical loss or damage to the extent usually provided in policy forms of insurers authorized to transact this insurance in Michigan. A copy of the master insurance policy will be available for review by the State, upon request. Any deductible shall be both the option and responsibility of the **Contractor**.
- 3.5 The Owner and Contractor intend that the required policies of property insurance must protect all the parties insured and provide primary coverage for all losses and damages caused by the perils covered. Accordingly, to the extent that the insurance company pays claims, the Owner and the Contractor and its Subcontractors/Suppliers waive all rights against each other for any such losses and damages and waive all such rights against the Professional and all other persons named as insureds or additional insureds.

#### 4. Prosecutions; Substantial Completion:

- 4.1 The Contractor must not start the Work at the site before the first day established by the Notice to Proceed and/or before all insurance is in effect. A pre-construction conference will be held with the Contractor to review its Progress Schedule, qualifications of its key personnel, its proposed access to the site, traffic and parking, procedures for submittal, change orders, etc., and to exchange emergency contact information. The Contractor must use its accepted Progress Schedule when making proposals or claims for adjustment in Contract Time/Price.
- 4.2 Except in an Emergency, all Work at the site must take place during normal working hours; 6:00 AM to 6:00 PM, during Business Days and in accordance with the special working conditions for the Agency. If the Contract Documents allow work outside the normal hours, the Contractor must provide a written notice to the Owner twenty-four hours before performing such Work and must reimburse the Owner any related increase in the costs incurred by the Owner such as overtime charges of the Professional and payments for custodial and security personnel.
- 4.3 If, upon inspection and completion of all pre-requisite testing of the Work, the Contractor considers that a portion of the work or all the Work is substantially completed, it must provide a list of items to be corrected or completed to the Owner and the Professional for joint inspection. Within ten Calendar Days of this joint inspection, the Professional will deliver to the Owner and Contractor a list of incomplete/Defective work or a Certificate of Substantial Completion with a Punch List. The certificate must:
- fix a reasonable date of Substantial Completion,
  - fix a date for completion of the Punch List, and
  - recommend the division of responsibilities between the Owner and Contractor for utilities, security, safety, insurance, maintenance, etc.

Upon issuing the Certificate of Substantial Completion, the Owner will pay for the completed Work subject to (a) withholding of two hundred percent of the value of any uncompleted Work, as determined by the Professional, and (b) any other deductions as the Professional may recommend or may withhold to cover Defective work, liquidated damages and the fair value of any other items entitling the Owner to a withholding. Prerequisites for Substantial Completion, over and above the extent of Work completion required, include (a) receipt by the **Owner** of operating and maintenance documentation, (b) all systems have been successfully tested and demonstrated by the **Contractor** for their intended use, and (c) the **Owner** having received all required certifications and/or occupancy approvals from the State and those Political Subdivisions having jurisdiction over the Work. Receipt of all certifications and/or occupancy approvals from those Political Subdivisions with jurisdiction in and of itself does not necessarily connote Substantial Completion. The Contractor must provide all related operating and maintenance (O&M) documentation to the Owner before training if training is required and not later than Substantial Completion otherwise. The Contractor must give the Owner the final O&M documentation (with revisions made after Substantial Completion) before the request for final payment.

4.4 The Owner may decide to use, at its sole option, any functioning portion of the Work and will inform the Contractor in writing of the decision. The portion of Work to be used must be jointly inspected to determine the extent of completion if it has not undergone the inspection for Substantial Completion. The Professional must prepare a list of items to be corrected/completed and the Owner will allow the Contractor reasonable access to correct/complete the listed items and finish other work.

#### **5. Warranty; Tests, Inspections and Approvals; Corrections of Work:**

5.1 **Warranty:** The Contractor must furnish the State with a written guarantee to remedy any defects due to faulty materials or labor which appear in the Work within one year from the date of final acceptance by the State. This warranty excludes defect or damage caused by (a) abuse, modification by others, insufficient or improper operation or maintenance, or (b) normal wear and tear under normal usage. Manufacturer warranties for materials and equipment received by the Contractor must be assigned and promptly delivered to the Owner at Substantial Completion. The warranties period starts from the date of the substantial completion and must be in full force and effect for the entire duration of the Correction Period.

**Roof Warranty:** For roofing systems, the following warranties are required as minimum:

- (a) A two-year contractor's warranty against any defects due to faulty materials or labor.
- (b) A fifteen-year manufacturer's total system warranty; and
- (c) A twenty-year membrane/shingles/tiles warranty.

5.2 **Tests, Inspections and Approvals:** The Owner will perform or retain a professional/agency to perform inspections, tests or approvals for those materials required to meet quality control standards specified in the Contract Documents except for those inspections, tests or approvals specifically designated to the Contractor in the Contract Documents. However, the Contractor must assume full responsibility for any testing, inspection, or approval.

- (a) required to meet code requirements, as promulgated by code inspecting authorities.
- (b) required by Law.
- (c) indicated or required by the Contract Documents as designated to the Contractor.
- (d) required for the Professional's acceptance of a Supplier, materials or equipment or mix designs submitted for prior approval by the Contractor; or
- (e) Defective work, including an appropriate portion of the Delay and costs occasioned by discovery of Defective work. The Contractor must (a) pay all related costs; (b) schedule related activities; and (c) secure and furnish to the Professional the required certificates of inspection, testing or approval. The Contractor must provide proper and safe access to the site for inspection, testing or approval. The Contractor must provide the Professional a timely notice whenever any Work is ready for inspection, testing or approval. If the Contractor covers any Work without proper approval by the Professional as required by the Contract Documents, the Contractor must, at its own expense, uncover, expose, or otherwise make available, when requested by the Professional or Owner, for testing, inspection, or approval of the covered Work.

5.3 **Correction of Work:** If any testing, inspection, or approval reveals Defective Work and the Work is rejected by the Professional, the Contractor, at its sole expense, must promptly, as directed, correct, or remove the Defective Work from the site and replace it with non-Defective Work within the Correction Period. The Contractor must bear responsibility for its proportionate share of the Delay and costs resulting from the correction and/or removal and replacement of Defective Work. If the Contractor, within reasonable and agreed upon time after receipt of written notice, (a) fails to correct Defective Work or remove and replace rejected Work, or (b) fails to correct or complete items on any Punch List, or (c) fails to perform Work in accordance with the Contract Documents, or (d) fails to comply with any other provision of the Contract Documents, the Owner, directly or through others, after seven Calendar Days from the date of the written notice to the Contractor, may correct and remedy the Defective Work. To the extent necessary to correct and remedy such Defective Work, the Owner must be allowed to exclude the Contractor from all or part of the site; take possession of all or part of the Work and stop related operations of the Contractor; take possession of the Contractor's tools, plant and office and construction equipment at the site; and incorporate into the Work materials and equipment for which the Owner has paid the Contractor. The Contractor must allow the Owner and the Professional easy access to the site to correct such Defective Work. The Owner must be entitled to an appropriate decrease in Contract Price for all claims, costs, losses, damages, and Delay incurred or sustained by the Owner which are attributable to the Contractor. Such costs may include, but not limited to, costs of correction or removal and replacement of Defective Work, costs of repair and replacement of other work destroyed or damaged by the action and related charges of the Professional. If the discovery of the Defective Work takes place after final payment and the Contractor fails to correct and pay the Owner any of these costs, the Owner must demand due performance under the Performance Bond. Until the period of limitation provided by Michigan Law, the Contractor must promptly, and upon receipt of written notice from the Owner, correct Defective Work. In the event of an Emergency or unacceptable risk of loss or damage or if appropriate under the circumstances, the Owner, directly or through others under contract with the Owner, may correct or remove and replace the Defective Work. The specified correction of Work requirements has no limitation on the rights of the Owner to have Defective Work corrected or removed and replaced, if rejected, except as otherwise provided by the Michigan Law.

5.4 **Special Correction Period Requirements:** Whenever the Owner undertakes any portion of the Work because the Contractor's act or omission Delays completion of the Work or it is eligible for Partial Use, the warranties for all materials and equipment incorporated into that portion of the Work must remain in full force and effect between the start of such Partial Use and the date when the Correction Period starts. The Correction Period for any Defective Work that is corrected or rejected and replaced within

the last three months of the Correction Period must be extended by an additional six months, starting on the date such Work was made non-Defective.

**5.5 Special Maintenance Requirements:** If the Contract Documents specify that the entire Work, or a portion of the Work, upon reaching Substantial Completion, must not be placed in use by the Owner, the Contractor must maintain the Work, or specified part of the Work, in good order and proper working condition and must take all other actions necessary for its protection between the certified date of Substantial Completion and the date when the Work, or designated part of the Work, is placed in use. If no separate price for such special maintenance period was requested and made part of the Contract Documents, the Owner will amend the Contract Documents to appropriately increase the Contract Price.

## **6. Changes:**

**6.1 Changes in the Work:** The Owner may, at any time, without notice to sureties, make any changes bilaterally or unilaterally, by a written Change Order, in the Work within the general scope of the Contract, including but not limited to changes in the Specifications, materials, or Contract Time. In a bilateral change order, the Owner may direct the Professional to prepare a Bulletin describing the change being considered. Upon receiving the Bulletin, the Contractor establishes the cost and returns it to the Professional for review within 15 calendar days. The Contractor's proposal must be irrevocable for 60 Calendar Days after it is submitted to the Professional. If the Professional recommends acceptance of the Bulletin and the Owner agrees with the changes, the Owner issues a written bilateral Contract Change Order to amend the Contract Documents. However, the Owner may issue a unilateral Change Order if the Owner and Contractor are unable to agree on the adjustment in Contract Price or Time. If the Contractor disagrees with such unilateral Contract Change Order, the Contractor must complete the Work and may deliver notice of a claim in accordance with the claim submittal process.

**6.2 Differing Site Condition:** The Owner does not warrant that any technical data, including the Project reference points, provided by the Owner is necessarily sufficient and complete for the purpose of selecting Means and Methods, initiating, maintaining, and supervising safety precautions and programs or discharging any other obligation assumed by the Contractor under the Contract Documents. If different or unknown site conditions are discovered, the Contractor must notify the Owner in writing before the conditions are disturbed or before proceeding with the affected Work. Upon review, if the Owner decides to agree with the differing site conditions, with the Professional's advice, the Owner may issue a written Contract Change Order to amend the Contract Price or Time through the Bulletin authorization process. If the Owner decides to disagree with the Contractor and the Contractor disagrees with the Owner's decision, the Contractor must complete the Work and may deliver notice of a claim in accordance with the claim submittal process. No proposal or claim by the Contractor due to differing site conditions will be allowed (a) if the Contractor knew of their existence before submitting its Bid or if those conditions could have been discovered by any reasonable examinations for which the Contractor, as Bidder, was made responsible under the Bidding Requirements and/or (b) unless the Contractor's written notice is provided within not more than 21 days after the contractor first recognizes the condition giving rise to the proposal or claim and gives the Owner adequate opportunity to investigate the asserted differing site conditions. A full and detailed breakdown of cost and time requested, with supporting documentation, if not provided with the initial notice shall be delivered to the Professional and Owner within 15 days of the notice, unless otherwise agreed in writing, by the Owner prior to expiration of such time.

**6.3 Responsibilities for Underground Utilities:** The Contractor must comply with the 2013 PA 174, as amended, MCL 460.721 et seq., and all other Laws concerning Underground Utilities. Before performing site Work, all Underground Utilities, lines, and cables (public and private) must be located and marked. The Contractor must notify MISS DIG to locate and mark utilities on properties that are not State properties. In addition, the Contractor must be responsible for immediately notifying the Owner of any contact with or damage to Underground Utilities, and for the safety, protection of and repairing any damage done to any Work, surface, and subsurface facilities. If the Contractor encounters Underground Utilities that inaccurately located by the Contract Documents or not previously located/located, which could not be reasonably have been seen, the Owner may issue a written Contract Change Order to amend the Contract Price or Time through the Bulletin authorization process.

**6.4 Hazardous Material Conditions:** If the Contractor encounters material reasonably believed to be Hazardous Material, which was not described in the Drawings and/or Specifications and was not generated or brought to the site by the Contractor, the Contractor shall immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions in accordance with all federal, state, and local laws. Upon receipt of the notice, the Owner will investigate the conditions and (a) may stop the Work and terminate the affected Work or the Contract for convenience; (b) may contract others to have the Hazardous Material removed or rendered harmless or (c) issue a written Contract Change Order to amend the Contract Price/Time through the Bulletin authorization process. If the Hazardous Material is brought to site by the Contractor or as a result in whole or in part from any of its violation of any Law covering the use, handling, storage, disposal of, processing, transport and transfer or from any other act or omission within its control, the Contractor is responsible for the Delay and costs to clean up the site, remove and render harmless the Hazardous Material to the satisfaction of the Owner, State and all Political Subdivisions with jurisdiction.

**6.5 Incidents with Archaeological Features:** The Contractor must immediately notify the Owner in writing of any Archeological Feature deposits encountered at the site and must protect the deposits in a satisfactory manner. If the Contractor encounters such features, which result in an anticipated change to the Contract Price/Time, the Owner may issue a written Contract Change Order through the Bulletin authorization process.

**6.6 Unit Price Work:** Quantities as listed have been carefully estimated but are not guaranteed. The Owner reserves the right to increase or decrease the quantities of the Work to be performed at the Unit Price by amounts up to 20 percent of the listed estimated quantities. For Unit Price Work, the Contractor must promptly inform the Professional in writing if actual quantities differ from the estimated quantities for any item. For quantities over 120% or below 80% of the estimated quantity, the Owner may negotiate a Unit Price with the Contractor, or direct a unilateral change, or bid that Work under separate contract. Any adjusted Unit Price agreed upon by the Owner will only apply to the actual quantities above 120% or below 80% of the estimated quantity. No adjustment due to quantity variations must be allowed (a) unless the Contractor met the notice requirements, or (b) if any Unit Price increase results in whole or in part from any act or omission within the control of the Contractor (errors in the Contractor's Bid, unbalanced Unit Prices, etc.). If a dispute arises between the Owner and the Contractor on the adjusted Unit Price, the Contractor must carry on the Work with due diligence during the disputes/disagreements.

**6.7 Cash Allowances; Provisionary Allowances:** The Contractor must obtain the Professional's and Project Director's written acceptance before providing materials, equipment, or other items covered by Cash Allowance. Work authorized under any Provisionary Allowance may consist of (a) changes required by actual conditions, as determined by the **Professional**, and (b) any other Work authorized and completed under the pertinent provisions of the Contract Documents.

**6.8 Changes in Contract Price:**

- 6.8.1 The Contractor's proposals or claims for Work Involved must detail all affected items of Work, whether increased, revised, added, or deleted, and must be fully documented and itemized as to (a) individual adds and deducts in Work quantities and labor man-hours; (b) corresponding itemized cost of Work Involved; (c) materials and equipment cost including transportation, storage, and suppliers' field services; and (d) Fee.
- 6.8.1.1 No proposal or claim by the Contractor on account of any asserted change not issued as a Bulletin by the PSC or Owner, shall be allowed unless initiated by written notice of such proposal or claim to the Professional and Owner within 21 days after the occurrence of the event giving rise to the proposal or claim. A full and detailed breakdown of cost and time requested, with supporting documentation, if not provided with the initial notice shall be delivered to the Professional and Owner within 15 days of the notice, unless otherwise agreed in writing, by the Owner prior to expiration of such time.
- 6.8.2 For Contractor's proposals or claims for adjustments in Contract Price arising from Delays, the Contractor's estimates must be as comprehensive and detailed as may be appropriate to support the proposal or claim. Examples of related information include labor manpower levels, production data and Progress Schedule revision.
- 6.8.3 If the Contract Documents use lump sum or Unit Prices for the Work Involved, those prices must be used in estimating the price change. Otherwise, the Owner may direct the Contractor to proceed (a) on a negotiated lump sum; or (b) on an actual cost basis with or without a guaranteed maximum; or (c) through a unilateral Change Order on a lump sum basis or a not-to-exceed basis, based on the Professional's estimate of the anticipated Cost of the Work Involved and a fee. Items making-up the Cost of the Work Involved must be allowable to the extent (a) consistent with those prevailing in the Project locality, (b) necessary, reasonable, and clearly allocable to the Work Involved, and (c) limited to labor costs, subcontract costs, material and equipment costs, construction equipment costs and general conditions costs.
- 6.8.4 In estimating any additional cost by the Contractor or its Subcontractor, the rates for the craft labor man-hour used in estimating changes in Contract Price must not exceed the rates in Means Cost Data (Means) or other cost guide acceptable to the Owner. If the rates exceed the acceptable cost guides, the Contractor must provide proper justifications acceptable to the Professional and the Owner. The payroll costs may be used to quote a Bulletin. However, the payroll costs must include wages, labor burdens and a factor for field supplies and purchase costs (less market values if not consumed) of tools not owned by the workers. Labor burdens must be certified by an authorized financial representative of the Contractor and may include social security, unemployment, taxes, workers' compensation, health and retirement benefits, vacation, and holiday pay. The factor for field supplies and tools (individually valued at less than \$1,000.00) must not exceed 4% of the wages without burdens, unless detailed data, which supports higher costs, is provided. Rates for owned, rented, or leased construction equipment must be in accordance with the contract price rates. Otherwise, the appropriate hourly, daily, weekly, or monthly rates listed in Means must be used. However, if the total rental or lease cost of an item to the Project exceeds the reasonable purchase price of the rented or leased item, the Owner reserves the right to pay only the purchase price of the item and take title to the item. Operating cost must not exceed the hourly operating rate in Means and for multiple shifts, rates must not exceed the shift work adjustments recommended in the cost guide.
- 6.8.5 The cost of any Work Involved may include necessary general conditions costs to the extent those costs increase or decrease on account of, or are directly attributable to, the performance of the furnishing and/or performance of the additional Work Involved or are required due to an extension in Contract Times or Delays. Such costs may include payroll costs of personnel, temporary facilities at the site, liability insurance and bond premiums, Subcontractors, royalty payments and fees for permits and licenses and taxes on the Work Involved.
- 6.8.6 A contractor or subcontractor who performs the Work may charge a fee of up to 15% of the cost of Work involved for overhead and profit. Contractor may charge a mark-up fee of up to 5% of its Subcontractor's cost excluding fees if the Work is performed by the Subcontractor. If Work is to be performed by lower tier subcontractor(s), intermediate subcontractors and the Contractor must share a fee of up to 5% of the lowest tier subcontractor's cost excluding fees. The total mark-up fees for the Work must not

exceed 20% of the lowest tier subcontractor's cost excluding fees. If the adjustment to the Contract Price incorporates a contractor reservation of rights to claim additional adjustments, the fees must be reduced by one-third. Contractor's administrative costs and home office overhead must be non-reimbursable expenses covered by the Fee for the Work.

## 6.9 Changes in Contract Time:

6.9.1 If a justified extension beyond the Contract Time is not reasonably anticipatable under the circumstances, the Owner may approve an extension to the Contract Time through the Bulletin authorization process at no additional cost to the Owner. Examples of events that may justify an extension in the Contract Time include acts of God; acts of the public enemy; fires; floods; and strikes.

6.9.2 If, at any time during the life of this Contract, the Contractor finds that for reasons beyond its control, it will be impossible to complete the Work on or before the Contract completion date, a written request for a change to the Contract extending the time of completion must be submitted. Such a request must set forth in precise detail the reasons believed to justify an extension and must be in such format as the State may require.

6.9.3 When submitting a quotation for a Contract change authorization for extra work or change in plans, the Contractor must include as part of the quotation, a statement requesting any extra time necessary to complete the related Work. Lack of such a statement will serve as notification that the extra time will not be required to complete the Contract work and will waive the right to a later claim. The Owner will not pay additional compensation to the Contractor for performing Contract Work during any extension period granted.

6.9.4 If the Progress Schedule and the funding allow for an early completion date, the Contractor may submit to the Owner for approval, a request to shorten the Contract Time. If approved by the Owner, the new Contract Time applies to the Project and liquidated damages, if any, will be assessed for any delays after the new completion date.

**6.10 Price Reduction for Defective Cost or Pricing Data:** Whenever the Contractor signs a proposal for a change in the Contract or claim settlement, the Contractor will be deemed to have certified on behalf of itself, Subcontractors and Suppliers, to its best knowledge and belief that the proposal and its contents (a) were made in good faith and are consistent with the facts and the provisions of the Contract; and (b) are current, complete, and accurate. If the Contract Price/Time is increased by any Change Order, claim or dispute settlement because the Contractor, Subcontractor or Supplier, at any tier, represented or furnished cost or pricing data of any kind that were false, contained math errors or were incomplete, the Contract Price must be correspondingly reduced by Change Order. If there is a good cause to doubt the Contractor's compliance with the Defective cost and pricing data requirements, the Owner must be entitled to make an appropriate withholding from any payment otherwise owed to the Contractor.

## 7. Payments

7.1 **Schedule of Values:** The Schedule of Values must be approved by the Professional and accepted by the Owner and must divide the Work into pay items for significant Sections and areas, facilities, or structures, with subtotals for first tier Subcontractors. As required or as noted in Division 1, the accepted Schedule of Values must be supported by a more detailed breakdown allocating the pay items to the Progress Schedule Activities. It must tabulate labor costs, Subcontract costs and material and equipment costs. Labor costs must include appropriate sums for construction equipment costs, general conditions costs, administrative costs, and profit, unless separate pay items are itemized for those costs. The Schedule of Values must include two percent of the Contract Price for each of the following close-out pay items: (a) fire safety inspection, certificate of occupancy and other code approvals, as specified in the Contract Documents, (b) manufacturer warranties, finalized operating and maintenance documentation, Owner training documentation, and test and balance reports, and (c) finalized as built/Record Documents.

7.2 **Requests for Payment:** Not more than once every thirty Calendar Days, the Contractor may submit to the Professional a Request for Payment on the Owner's form signed by the Contractor certifying Work completed and enclosing all supporting documentation. A draft copy of the payment request must be submitted to the Owner Field Representative for review and comments. For projects under \$50,000, the Contractor may not submit more than two requests in addition to the final payment request. Each Request for Payment must certify that all monies owed by the Contractor to Subcontractors and Suppliers for which payment previously has been sought has been paid from payments received and include a sworn statement. No Request for Payment must include amounts for a Subcontractor or Supplier if the Contractor does not intend to use the payments requested, when received, to reduce the Contractor's outstanding obligations on the Work. The Owner will pay the Contractor within thirty Calendar Days after the Owner receives and approves a certified Request for Payment from the Professional. The Contractor will provide a certification in writing that the payment request submittal is true and accurate. If payment is requested based on materials and equipment stored at the site or at another location agreed to in writing, the Request for Payment also must be accompanied by (a) consent of surety, (b) a bill of sale, invoice or other documentation warranting that the Owner has received the materials and equipment free and clear of all liens, and (c) evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect them and the Owner's interests. The Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Request for Payment, whether incorporated in the Work or not, will pass to the Owner free and clear of all liens no later than at the time of payment by the Owner to the Contractor.

- 7.2.1 **Electronic Funds Transfer:** The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.
- 7.3 **Review of Request for Payment; Intent of Review:** Within ten Calendar Days after receipt of a Request for Payment, the Professional must certify to the Owner the amount the Professional determines to be due or must return the Request for Payment to the Contractor indicating the reasons for withholding certification. The Professional's certification of any Request for Payment constitutes a representation to the Owner that the Work has progressed to the point indicated; that to the best of the Professional's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents; and that the Contractor is entitled to payment in the amount certified. In the case of final payment, the Professional's certification of final payment and recommendation that the Work is acceptable must be a further representation that conditions governing final payment to the Contractor have been met.
- 7.4 **Refusal to Make or to Recommend Payment:** The Owner may withhold from any payment an amount based on the (a) Professional's refusal to recommend payment or (b) Owner's estimate of the fair value of items included in the payment request. The Owner will give the Contractor reasonably prompt written notice supporting such action. The Professional may refuse to recommend any part of any payment, or because of subsequently discovered evidence, inspections or tests or the value of the Punch List, nullify all or any portion of any payment previously recommended, as the Professional may consider necessary to protect the Owner from loss because:
- (a) the Work is Defective or completed Work has been damaged requiring correction or replacement,
  - (b) the Contract Price has been reduced by Change Order,
  - (c) it has been necessary that the Owner correct Defective Work or complete Work,
  - (d) reasonable evidence exists that all or a part of the Work will not be completed within the corresponding Contract Time,
  - (e) the Contractor failed to comply with any material requirements of the Contract, including, but not limited to the failure to submit Progress Schedule Submittals or as built/Record Documents when due,
  - (f) stored materials for which payment has been made or is sought has been determined by the Professional or the Owner Field Representative to be damaged or missing, or
  - (g) the Professional reasonably believes or knows of the occurrence of an event justifying termination for cause.
- 7.5 **Request for Final Inspection:** The Contractor must complete the Substantial Completion Punch List within the Contract Time and date. The Contractor must assemble all required documentation before requesting final inspection in writing. The Contractor may request final inspection of the entire Work, or the part of the Work for which final payment is specified in the Contract Documents. Upon this written notice, and if deemed appropriate by the professional, the Professional will make a final completion inspection with the Owner and Contractor and notify the Contractor of all incomplete or Defective Work revealed by the Final Inspection. The Contractor must immediately correct and complete the Work.
- 7.6 **Close-out Documents:** The Contractor must prepare and submit the following documentation before requesting final inspection or final payment: final operating and maintenance documentation (with revisions made after Substantial Completion), warranties, inspection certificates, as built/Record Documents, release of payment claim forms, and all other required documents.
- 7.7 **Request for Final Payment:** The Contractor may request final payment after correcting or completing the Work to the satisfaction of the Professional and delivering close-out documentation (7.6). The Contractor's request for final payment must also enclose:
- (a) evidence of completed operations insurance and an affidavit certifying that the insurance coverage will not be canceled, materially changed, or renewal refused,
  - (b) an affidavit certifying that the surety agrees that final payment does not relieve the surety of any of its obligations under the Performance Bond and Payment Bond,
  - (c) a completed DTMB-0460 Form close out checklist,
  - (d) a list of all pending insurance claims arising out of or resulting from the Work being handled by the Contractor and/or its insurer
  - (e) Contractor's 'Guarantee and Statement' (DTMB-0437) containing a statement of guaranteed indebtedness acceptable to the Owner in the full amount of the Contract Price, or a release of payment claims in the form of a release of liens, or a Bond or other security acceptable to the Owner to indemnify the Owner against any payment claim.
- 7.8 **Final Payment and Acceptance:** If the Professional is satisfied that the entire Work, or the part of the Work for which final payment is specified in the Contract Documents, is complete and the Contractor's other obligations under the Contract Documents has been fulfilled, the Professional will furnish to the Owner and Contractor the Professional's certification of final payment and acceptance within thirty Calendar Days after receipt of the final payment request. If the Professional is not satisfied, the Professional will return the request to the Contractor indicating in writing the reasons for not certifying final payment. If the final payment request is returned, the Contractor must correct the deficiencies and re-request final payment. If

the Owner concurs with the Professional's certification of final payment the Owner will, within thirty Calendar Days after receipt of the Professional's certification of final payment, pay the balance of the Contract Price subject to those provisions governing final payment specified in the Contract Documents. If the Owner does not concur with the Professional's determination, the Owner will return the request for final payment to the Contractor with written reasons for refusing final payment and acceptance.

**7.9 Contractor's Continuing Obligation:** The following does not constitute acceptance of the Work in the event the Work or any Work is not in accordance with the Contract Documents, and therefore does not release the Contractor from its obligation to perform and furnish the Work in accordance with the Contract Documents:

- (a) a certification by the Professional of any Request for Payment or final payment.
- (b) the issuance of a Substantial Completion certificate.
- (c) any payment by the Owner to the Contractor.
- (d) any Partial Use.
- (e) any act of acceptance by the Owner or any failure to do so.
- (f) any review and approval of a Shop Drawing, sample, test procedure or other Submittal.
- (g) any review of a Progress Schedule.
- (h) any On-Site Inspection.
- (i) any inspection, test, or approval.
- (j) any issuance of a notice of acceptability by the Professional; or
- (k) any correction of Defective Work or any completion of Work by the Owner.

**7.10 Waiver of Claims:** The making of final payment does not constitute a waiver by the Owner of any rights as to the Contractor's continuing obligations under the Contract Documents, nor will it constitute a waiver of any claims by the Owner against the Contractor still unsettled, or arising from unsettled payment claims, Defective Work appearing after final inspection or failure by the Contractor to comply with the Contract Documents or the terms of any special warranties provided by the Contract Documents or by Law. The acceptance of final payment will constitute a waiver of all claims by the Contractor against the Owner, other than those claims previously made in writing, on a timely basis.

**8. Other Work:** During the Contract Time, the Owner may self-perform or Contract for other work at the site. By doing so, the Owner or its representative will coordinate the operations of the Contractor and the other work. Whenever the other work interfaces with the Contractor's Work on site, the Contractor must coordinate its activities with the interfacing work, inspect the other work and promptly report to the Professional in writing if the other work is unavailable or unsuitable. The Contractor's failure to do so will constitute an acceptance of such other work as fit and proper for integration with the Work except for latent or non-apparent defects and deficiencies in the other work. The Contractor must provide proper and safe access to the site for handling, unloading and storage of their materials and equipment and for the execution of the other work. The Contractor must do all cutting, fitting, patching, and interfacing of the Work that may be required to make any part of the Work come together properly and integrate with other work. If the Contractor becomes party to a dispute or claim due to damages caused to its Work/property or other work/their property, the Contractor must promptly attempt, without involving the Owner or the Professional or their agents, to settle with the other party by agreement or otherwise resolve the claim. If the Owner determines that the other work resulted in a delay to the Work to be performed by the Contractor and such delay justifies a Change Order, the Owner will authorize the necessary adjustment in Contract Price and/or Time.

**9. Stop Work Orders and Suspension of Work:** The Owner may order the Contractor in writing to defer, stop, suspend, or interrupt all or part of the Work, in the event any of the following situations:

- (a) any Work is Defective,
- (b) any Work, when completed, will not conform to the Contract Documents,
- (c) any materials or equipment are unsuitable,
- (d) any workers are insufficiently skilled,
- (e) failure of the Contractor to implement appropriate measures for the SESC, or
- (f) as the Owner may determine appropriate for its convenience. The Contractor is responsible for the Delays and any additional costs if at fault. Any justified increase in Contract Price/Time due to suspension of Work must be submitted within twenty-one Calendar Days of knowing the extent of Delays and before submitting the final payment.

## **10. Termination:**

**10.1 Termination for Breach:** The Owner may elect to terminate all or any part of the Work if:

- (a) the Contractor fails to complete the Work, or a specified part of the Work, within the corresponding Contract Time; fails or refuses to supply sufficient management, supervision, workers, materials, or equipment; or otherwise fails to prosecute the Work, or any specified part of the Work, with the diligence required to comply with the Contract Time(s).
- (b) the Contractor persistently disregards the authority of the Professional or violates or disregards a provision of the Contract Documents or the Laws of any Political Subdivision with jurisdiction.
- (c) the Contractor admits in writing, or the Owner otherwise establishes, the Contractor's inability or refusal to pay the Contractor's debts generally as they become due.



- (d) in response to the Owner's demand, the Contractor fails to provide adequate, written assurance that the Contractor has the financial resources necessary to complete the Work within the Contract Time.
- (e) the Contractor fails to comply with the Michigan Residency requirements (1984 PA 431, as amended, MCL 18.1241a); or is found to be in violation of Section 4 of 1980 PA 278 concerning unfair labor practices, or any nondiscrimination requirements imposed by Law.
- (f) at any time, the Contractor, Subcontractor or Supplier is in violation of unfair labor practices prohibited by Section 8 of Chapter 327 of the National Labor Relations Act, 29 U.S.C. 158; or
- (g) the Contractor violates or breaches any material provision of the Contract Documents, which provides contractually for cause termination or rescission of the Contract or of the Contractor's right to complete the Work.

Within seven Calendar Days after the Contractor receives a notice requiring assurance of due performance for any of the above occurring non-conformances, the Contractor must meet with the Owner and present the Contractor's plan to correct the problems. If the Owner determines that the Contractor's plan provides adequate assurance of correction, that determination does not waive the Owner's right to subsequently default the Contractor or affect any rights or remedies of the Owner against the Contractor and/or surety then existing or that may accrue in the future. The Owner, after giving the Contractor and surety seven Calendar Days' written notice of intent to default, may declare the Contractor in default and terminate the services of the Contractor for cause. Unless otherwise agreed between the Owner and Contractor, at the expiration of the Seven-Calendar Day (intent to default) period, the Contractor must immediately stop all Work and proceed in accordance with the Owner's instructions. Following the expiration of the Seven-Calendar Day (intent to default) notice, the Contractor will be sent a default letter – notice of termination for cause. The Owner will issue a Contract Change Order to revise the name of the contract party to the name of the surety company. The surety company must undertake to perform and complete the Work, in accordance with the Contract Documents, in place of the Contractor, either through the surety's agents or by executing agreements with qualified contractors (excluding the Contractor and any of the Contractor's affiliates), or both.

The Owner may issue a fifteen-Calendar Day notice of intent to default the surety company if they fail to execute in a timely manner the completion of the Contract Work. Without an adequate plan of correction, the Owner may issue a notice of termination for cause letter to the surety. If a termination of the contract with the surety occurs, the Owner reserves the right to complete the Work.

If the Owner has terminated the Contractor, any such termination will not affect any rights or remedies of the Owner against the Contractor or surety, or both, then existing or that may accrue after termination. All provisions of the Contract Documents that, by their nature, survive final acceptance of the Work must remain in full force and effect after a termination for cause of the Contractor or default of the surety, or both. The Owner may, in its sole discretion, permit the Contractor to continue to perform Work when the Contractor is in default or has been defaulted. Such decision by the Owner in no way operates as a waiver of any of the Owner's rights under the Contract Documents or Performance Bond, nor in the event of a subsequent default, entitle the Contractor or surety to continue to perform or prosecute the Work to completion.

- 10.2 **Termination on Non-Bonded Project:** For non-bonded projects, the Owner will follow the termination protocol in Paragraph 10.1 without involving a surety.
- 10.3 **Termination for Convenience of the Owner:** Upon fifteen Calendar Days' written notice to the Contractor and surety, or sooner if reasonable under the circumstances, the Owner may, without cause and without prejudice to any other right or remedy it may have, elect to terminate any part of the Work, or the Contract in whole or in part, as the Owner may deem appropriate for its convenience. Upon receipt of any such termination notice, the Contractor must immediately proceed in accordance with any specific instructions, protect and maintain the Work, and make reasonable and diligent efforts to mitigate costs associated with the termination. In such termination, the Contractor must be paid in accordance with the terms of this Contract for only services rendered before the effective date of termination. Upon termination for convenience, the Contractor must be released from any obligation to provide further services and the Owner must have full power and authority to take possession of the Work, assume any agreements with Subcontractors and Suppliers that the Owner selects, and prosecute the Work to completion by Contract or as the Owner may deem expedient.
- 10.4 **Termination for Lack of Funding:** If expected or actual funding is withdrawn, reduced, or limited in any way before the completion date set forth in this Contract or in any amendment, the State may, upon written notice to the Contractor, terminate this Contract in whole or in part in accordance with Paragraph 10.3.
11. **Disputes:** All claims, counterclaims, disputes, and other matters in question between the Owner and Contractor arising out of or relating to the Contract Documents must be submitted in writing to the Professional and otherwise processed and resolved as provided in this Article. *Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker (Professional/PSC). Claims by either party must be initiated within 21 days after the occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognized the condition giving rise to the claim. Provided such timely notice is delivered, a full and detailed breakdown of cost and time requested, with supporting documentation, if not provided with initial notice shall be delivered to Professional and Owner within 15 days of the notice, unless otherwise agreed in writing, by the Owner prior to expiration of such time.* The Contractor must carry on the Work with due diligence during all disputes or disagreements. Work must not be delayed or postponed pending resolution of any disputes or disagreements. The Contractor must exercise reasonable precautions, efforts, and measures to avoid situations that would cause delay.

- 11.1 **Notice of Claim:** Except for Owner claims for liquidated damages, no claim is valid unless it is based upon written notice delivered by the claimant to the other party and the Professional/PSC within 21 days of the event giving rise to the claim. The notice must state the nature of the dispute, the amount involved, if any, and the remedy sought. The claim submittal with all supporting data must be delivered within thirty (30) Calendar Days after the initial notice unless the Professional allows an extension by written approval. A claim by the Contractor must be submitted to the Professional and Project Director for a recommendation or decision from the Professional. A claim by the Owner must be submitted to the Contractor and the Professional for a written recommendation or decision by the Professional. The Owner reserves the right to audit any Contractor claim (or claim package) that the Contractor values at more than \$50,000.00. Pending final resolution of any claim under this Article, the Contractor must proceed diligently with the Work and comply with any decision of the Owner and/or Professional. For all Contractor claims seeking an increase in Contract Price or Contract Time, the Contractor must submit an affidavit, certifying that the amount claimed accurately reflects any Delay and all costs that the Contractor is entitled from the occurrence of the claimed event and that supporting cost and pricing data are current, accurate, complete and represent the Contractor's best knowledge and belief. The affidavit must be signed in the same manner as required in Item 6 of Section 00100.
- 11.2 **Recommendations or Decisions from the Professional:** For claims under \$100,000.00, if requested in writing by the Contractor, the Professional will render a recommendation or decision within thirty Calendar Days after the request and the Owner will issue, if necessary, a determination within thirty Calendar Days after the Professional's recommendation or decision. For claims exceeding \$100,000.00, the Professional will issue its recommendation or decision and the Owner, if necessary, will issue its determination, within sixty Calendar Day.

If the Professional denies a Contractor claim or agrees with an Owner claim, that decision must be final and binding on the Contractor, without any determination by the Owner, unless the Contractor files a request for a presentation with the Director-DCD within thirty Calendar Days. To the extent that any recommendation from the Professional is partly or wholly adverse to a claim from the Owner, that determination must be final and binding on both the Owner and Contractor unless either party files a request for a presentation with the Director-DCD within thirty Calendar Days. If the Professional recommends payment of any Contractor claim which increases the Contract Price, that recommendation is subject to the Owner's written approval. In the event any such determination from the Owner is partly or wholly adverse to the preceding recommendation from the Professional, that determination must be final and binding on the Contractor unless the Contractor files suit in the Michigan Court of Claims within thirty Calendar Days after receipt of such determination. The claim is waived if not made in accordance with these requirements.

If either the Contractor or Owner is not satisfied with any decision of the Professional on a claim, that party must, within thirty Calendar Days of receiving that decision, file a written appeal with complete supporting documentation with the Director-DCD. The Director-DCD has discretion concerning the allowability of evidence submitted and is not bound to any rules of evidence. If the right to a presentation is waived or if a presentation is conducted and the dispute remains unresolved, the Director-DCD, at the Director-DCD's sole option, must specify in which forum the dispute must be conducted by issuing a written determination to the Contractor that the dispute if the Contractor so elects, be submitted in writing to the Michigan Court of Claims. The Director-DCD's determination on the dispute is final and binding on the Contractor unless the Contractor files a lawful action in the Michigan Court of Claims within thirty Calendar Days after receiving the Director-DCD's determination. After settlement or final adjudication of any claim, if payment by the Contractor is not made to the Owner, the Owner may offset the appropriate amounts against (a) payments due to the Contractor under any other Contract between the Owner and the Contractor, or (b) any amounts for which the Owner may be obligated to the Contractor in any capacity. The Director-DCD may designate someone to fulfill the Director-DCD's duties under these terms and conditions.

## END OF SECTION 00700

## SECTION 00750 SPECIAL WORKING CONDITIONS

1. The Work is for the Department of Technology, Management, and Budget, and their special working conditions are included in Appendix II. Contractor must comply with all security regulations. Access to and egress from the buildings and State Agency grounds must be via routes specifically designated by the State Agency. Whenever the Contractor has caused an operating security or fire system to go out of service or left unsecured openings in existing facilities or security fences, the Contractor must furnish a security guard or fire watch acceptable to the Owner to maintain security of the facility outside of normal working hours and will be held responsible for any losses from the facility.
2. The Contractor must maintain, at all times, dust control measures to the satisfaction of the Owner.
3. Work requiring total de-energization of GSB Switchboard #4A shall occur on weekends, holidays or other times outside of normal working hours. The Contractor shall schedule total de-energization of GSB Switchboard #4A with the DTMB Operations Site Manager, the Engineer and the DTMB Project Director.
4. Work requiring partial de-energization of electricity shall be scheduled with the DTMB Operations Site Manager and may occur during normal working hours if preparations can be made to avoid interruption to work-flow at the General Services Building.

**END OF SECTION 00750****SECTION 00800 SUPPLEMENTARY CONDITIONS****STATE-FUNDED PROJECT PREVAILING WAGE REQUIREMENTS**

1. The Contractor (and its Subcontractors) represents and warrants that it pays all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications as prevailing wages based on locality, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and the laborers and mechanics.
2. The Contractor represents and warrants that Contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work.

**END OF SECTION 00800****SECTION 00900 ADDENDA**

1. Each Bid submittal must include acknowledgement of receipt and review of all Addenda issued during the Bidding period.

**END OF SECTION 00900**

**DIVISION 01**

**GENERAL REQUIREMENTS**

## SECTION 01010 SUMMARY OF WORK

### 1. General

1.1 General information covering the "Scope of Work" is specified on the Invitation to Bid. Additional information is as follows:

- a) The original General Services Building was built circa 1973. The 3000A; 120/208V; 3Φ; 4W switchboard is the original ITE UniPower® type that was only manufactured for two years. Replacement parts are difficult to find, the circuit breakers are difficult and expensive to replace. The 3000A main circuit breaker is of a type rarely found in service today .
- b) In addition, numerous taps were made to this switchboard largely because there are no spare circuit breakers.
- c) The GSB Switchboard #4A does not allow for front connection to the circuit breakers. Rather, each circuit breaker has a copper bus runback requiring rear access. The rear access has insufficient clearance to meet the 2023 National Electrical Code. In addition, these copper bus runbacks have significant salvage value.
- d) A 3000A busway was tapped to the main bus of the switchboard to furnish an alternate feed to a manual transfer switch serving distribution panel DP2 located in the CPC room. This work was performed circa 1999 and appears to be a Y2K precaution. This feeder is no longer needed. It was never utilized and the normal feed to distribution panel DP2 is backed up by standby generator.
- e) Most new load to GSB Switchboard #4A had to be added by taps to the main bus as replacement circuit breakers and additional circuit breaker space were unavailable. This has caused the electrical vault to become overcrowded.
- f) In 2022, a major lighting retrofit was performed by a combination of DTMB electricians and electrical contractors. The retrofit was designed by Michigan Lighting Systems who also furnished the LED luminaires. Branch circuits fed by the old night light panel (LP-X) may or may not have been part of the 2022 LED retrofit. LP-X has long violated the National Electrical Code and Michigan Energy Code. As such, a retrofit of those luminaires fed from LP-X as well as luminaires in each room is necessary to meet modern energy and building codes. Michigan Lighting Systems can furnish fixtures, controls and emergency power packs matching those already installed. As such Michigan Lighting Systems products and proposed layouts are chosen as a "no equal" for this project.

1.2 The Agency will provide the following Work:

- (a) State Salvage: The State reserves the right to salvage certain items and equipment. Lighting fixtures shall be salvaged by the Contractor according to plans and specifications. Other discretionary items to be salvaged will be identified to the Bidder at the time of their inspection of the proposed Work. The State will remove salvaged items before commencement of the Work or otherwise as coordinated and scheduled with the Contractor.
- (b) The bid price for this project has a provision for a monetary salvaged copper deduction. The State will not remove salvaged copper wire, bus, or busway.
- (c) Moving Furnishings and Equipment: The Contractor must give timely notice to the State Agency representative identified in the pre-construction meeting of all furnishings, window covering and movable equipment that will interfere with the Work or which the Contractor cannot protect with coverings of paper, plastic, drop cloths or clean tarpaulin. The Contractor must furnish, install, maintain, and remove all coverings used to protect furnishings, window coverings and movable equipment.

### END OF SECTION 01010

## SECTION 01020 ALLOWANCES

### 1. Allowances

#### 1.1 Lighting Retrofit Allowance:

- (a) Bidders must include in their Base Proposal Sum an allowance of \$140,500.00 to cover lighting design-build retrofit work specified in Specification Section 26 50 00 and designated on plans. The base bid shall include bonds and insurance on the value of the allowance.
- (b) Upon surveying the lighting system fed from existing night light panel, the Contractor shall furnish a detailed estimate showing detailed material and labor cost.
- (c) Monies in the allowance will be used only if directed in writing by the Project Director and Professional.
- (d) Daily labor applied to the lighting retrofit portion of the Work shall be recorded in the Contractor's Daily Reports and tallied by the Contractor. Work shall be substantiated by photographs in the Contractor's Daily Repots. Receipts for luminaires, controls and wiring shall be included in the O&M manual.
- (d) Unused allowances will be deducted from the contract amount through contract change order.

#### 1.2 Provisional/Contingency Allowances:

- (a) Bidders must include in their Base Proposal Sum a contingency allowance of \$90,000. The base bid shall include bonds and insurance on the value of the allowance.
- (b) Bidders must include in their Base Proposal Sum a contingency allowance for lighting retrofit of \$140,000.00. The base bid shall include bonds and insurance on the value of the allowance.
- (b) Monies will be used in the contingency allowance only if directed in writing by the Project Director and Professional.

- (c) Payments under a Provisionary Allowance will include not only the purchase/furnished cost of the materials and equipment involved, but also all related labor costs, subcontract costs, construction equipment costs, general conditions costs and Fee, provided they are calculated in accordance with the requirements of the contract documents.
- (c) Unused allowances will be deducted from the contract amount through contract change order.

### END OF SECTION 01020

## SECTION 01025 MEASUREMENT AND PAYMENT

1. **Schedule of Values:** Unless noted otherwise, before mobilization and start of construction, the Contractor must submit a Schedule of Values to the Professional for review and approval, of the various tasks that must be performed to complete all the Work. The schedule must show each task and the corresponding value of the task, including separate monies allocated for General Condition items and Project close-out. The aggregate total value for all tasks must be equal to the total Contract sum.

### END OF SECTION 01025

## SECTION 01040 COORDINATION

### 1. Project Coordination:

- (a) Before beginning Work the Contractor must coordinate with the State Agency representative to implement the schedule for the Project. Once the Project is started, it must be carried to completion without delay. (b) Any building utility service interruptions or outages including security required by the Contractor in performing the Work must be prearranged with the staff of the State Agency and must occur only during those scheduled times. (c) The Contractor is not responsible for removing room furnishings unless is required by the Contract Documents.

### 2. Cutting and Patching:

- (a) The Contractor must do all cutting, fitting, or patching of the Work that may be required to make its several parts fit together properly or make new Work join with the existing structure. The Contractor must take proper precautions so as not to endanger any existing Work. The Contractor must not cut or alter existing structural members or foundations unless specifically required by the Contract Documents.
- (b) Holes or openings cut in exterior walls and roofs for installation of materials or equipment must be waterproofed by appropriate, approved materials and methods.
- (c) All adjacent finished surfaces that are damaged by the new Work must be patched with materials matching existing surfaces. Joints between patched and existing material must be straight, smooth, and flush. Workers skilled in its installation must apply all patching material.

### END OF SECTION 01040

## SECTION 01050 FIELD ENGINEERING

1. When applicable, the Contractor must employ a surveyor who must establish and maintain all lines and levels required for laying out and constructing the Work. The Contractor agrees to assume all responsibility due to inaccuracy of any Work of the surveyor, and including incorrect benchmarks, their loss or disturbance. Upon completion of the Project, the Contractor must submit two copies of site layout Drawings prepared for the Project and certified by the surveyor.

### END OF SECTION 01050

## SECTION 01060 REGULATORY REQUIREMENTS

1. **Laws:** The Contractor and its Subcontractors/Suppliers must comply with all Federal, State, and local Laws applicable to the Work and site.
2. **Codes:** All Works must be provided in accordance with the State Construction Code Act, 1972 PA 230, as amended, MCL 125.1501 et seq., International Building and Residential Codes and all applicable Michigan construction codes and fire safety including but not limited to: Michigan Building Code, Michigan Residential Code, Michigan Uniform Energy Code, Michigan Electrical Code, Michigan Rehabilitation Code for Existing Buildings, Michigan Mechanical Code, Michigan Elevator Code and Michigan Plumbing Code. If the Contractor observes that any Contract Document conflicts with any Laws or the State Construction Code or any permits in any respect, the Contractor must promptly notify the Professional in writing. If the Contractor provides any Work knowing or having to reason to know of such conflict, the Contractor must be responsible for that performance.

3. **Permits:** All required construction permits must be secured and their fees including inspection costs must be paid by the Contractor. The time incurred by the Contractor in obtaining construction permits must constitute time required to complete the Work and does not justify any increases to the Contract Time or Price, except when revisions to the Drawings and/or Specifications required by the permitting authority cause the Delays. The Contractor must pay all charges of Public Utilities for connections to the Work, unless otherwise provided by Cash Allowances specific to those connections. The following permit fees will be paid by the Owner
4. **Taxes:** The Contractor must pay all Michigan sales and use taxes and any other similar taxes covering the Work that are currently imposed by legislative enactment and as administered by the Michigan Department of Treasury, Revenue Division. If the Contractor is not required to pay or bear the burden or obtains a refund of any taxes deemed to have been included in the Bid and Contract Price, the Contract Price must be reduced by a like amount and that amount, whether as a refund or otherwise, must ensure solely to the benefit of the State of Michigan.
5. **Safety and Protection:** The Contractor and its Subcontractors/Suppliers must comply with all applicable Federal, State, and local Laws governing the safety and protection of persons or property, including, but not limited to the Michigan Occupational Safety and Health Act (MIOSHA), 1974 PA 154, as amended, MCL 408.1001 et seq., and all rules promulgated under the Act. The Contractor is responsible for all damages, injury or loss to the Work, materials, equipment, fines, penalties as a result of any violation of such Laws, except when it's due to the fault of the Drawings or Specifications or to the Act, error, or omission of the Owner or Professional. The Contractor is solely responsible for initiating, maintaining, and supervising all safety precautions and programs and such responsibility must continue until such time as the Professional is satisfied that the Work, or Work inspected, is completed and ready for final payment. In doing the Work and/or in the event of using explosives, the Contractor must take all necessary precautions for the safety of, and must erect and maintain all necessary safeguards and provide the necessary protection to prevent damage, injury or loss to: (a) all employees on the Work and other persons who may be affected by the Work, (b) all the Work and materials and equipment to be incorporated into the Work, whether stored on or off the site, and (c) other property at or adjacent to the site, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Utilities not designated for removal, relocation or replacement. In the event of severe weather, the Contractor must inspect the Work and the site and take all reasonably necessary actions and precautions to protect the Work and ensure that public access and safety are maintained.
6. **Fire Hazard Conditions:**
  - (a). The fire hazard classification of finish materials where used in the specification must be in accordance with the current Michigan Building Code.
  - (b) Classification must be determined by tunnel test in accordance with National Fire Protection Association (NFPA-255), American Society for Testing Materials (ASTM E-84) or Underwriters' Laboratories, Inc. (UL-723).
8. **Michigan Right-To-Know Law:** The Contractor and its Subcontractors/Suppliers must comply with MIOSHA, Michigan Right-to-Know Law (Public Act 80 of 1986) and the rules promulgated under it. The Act places certain requirements on employers to develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers and development and availability of Safety Data Sheets (SDS), and to provide training for employees who work with these chemicals and develop a written hazard communications program. The Act also provides for specific employee rights, including the right to be notified of the location of SDS and to be notified at the site of new or revised SDS within five Business Days after receipt and to request SDS copies from their employers. The Contractor, employer or Subcontractor must post and update these notices at the site.
9. **Environmental Requirements:** The Contractor and its Subcontractors/Suppliers must comply with all applicable Federal, State and local environmental Laws, standards, orders or requirements including but not limited to the National Environmental Policy Act of 1969, as amended, Michigan Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended, the Clean Air Act, as amended, the Clean Water Act, as amended, the Safe Drinking Water Act, as amended, Pollution Prevention Act, as amended, Resource Conservation and Recovery Act, as amended, National Historic Preservation Act, as amended and Energy Policy and Conservation Act and Energy Standards for Buildings Except Low-Rise Residential Buildings, ANSI/ASHRAE/IESNA Standard 90.1.
10. **Nondiscrimination:** For all State Contracts for goods or services in amount of \$5,000 or more, or for Contracts entered into with parties employing three or more employees; in connection with the performance of Work under this Contract, the Contractor and its Subcontractors and Suppliers must comply with the following requirements:
  - 10.1 Not to discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight or marital status and take affirmative action to ensure that applicants are employed, and the employees are not subject to such discrimination. Such action must include, but is not limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.
  - 10.2 To state in all solicitations or advertisements for employees that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, or marital status.

- 10.3 To send, or have its collective bargaining representative send, each labor union or representative of workers with which there is a collective bargaining agreement or other contract or understanding, a notice advising the labor unions or workers' representative of the commitments under this provision.
- 10.4 To comply with the Elliot-Larsen Civil Rights Act, 1976 PA 453, as amended , MCL 37.2201 et seq.; the Michigan Persons with Disability Civil Rights Act, 1976 PA 220, as amended, MCL 37.1101 et Seq.; *Executive Directive 2019-09*; and all published rules, regulations, directives, and orders of the Michigan Civil Rights Commission (MCRC) which may be in effect on or before the date of Bid opening.
- 10.5 The Contractor must furnish and file compliance reports within the times, and using the forms prescribed by the MCRC. Compliance report forms may also elicit information as to the practices, policies, programs, and employment statistics of the Contractor and Subcontractors. The Contractor must permit access to Records by the MCRC and its agent for purposes of ascertaining compliance with the Contract and with rules, regulations, and orders of the MCRC.
- 10.6 If, after a hearing held under its rules, the MCRC finds that the Contractor has not complied with the Elliott-Larson requirements of the Contract Documents, MCRC may, as part of its order, certify its findings to the Administrative Board of the State of Michigan, which may order the cancellation of the Contract and/or declare the Contractor ineligible for future contracts with the State until the Contractor complies with the MCRC's order.
11. **Michigan Residency for Employees:** Fifty percent of the persons employed on the Work by the Contractor must have been residents of the State of Michigan for not less than one year before beginning employment on the Work. This residency requirement may be reduced or waived to the extent that Michigan residents are not available or to the extent necessary to comply with the federal funds used for the Project. This requirement does not apply to employers who are signatories to collective bargaining agreements that allow for the portability of employees on an interstate basis.

## END OF SECTION 01060

## SECTION 01090 REFERENCES

1. References will be made in an abbreviated alpha numeric form to specific standard specifications, reference publications and building codes of federal or state agencies, manufacturers, associations, or trade organizations. Such references will be identified by the alphabetic abbreviation which identifies the government agency, the association or organization followed by the rule, section or detail number that are to form a part of these specifications, the same as if fully set forth herein, and must be of latest issued date in effect three months before the Bid opening date shown on the Proposal and Contract. The abbreviations used are referred to as follows:

<u>Abbreviation</u>	<u>Agency, Association or Organization</u>
ACI	American Concrete Institute
AISC	American Institute of Steel Construction, Inc.
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute, Inc.
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineering
ASTM	American Society of Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
BOCA	Building Officials and Code
CDA	Copper Development Assn., Inc.
CLFMI	Chain Link Fence Manufacturer's Institute
CISPI	Cast Iron Soil Pipe Institute
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard
F/M	Factory Mutual Research Corporation
FS	Federal Specifications
HEW	United States Department of Health Education and Welfare
MDOT	Michigan Department of Transportation
NEC	National Electrical Code (2023 Edition)
NFPA	National Fire Protection Association
NSF	National Sanitation Foundation Testing Laboratory, Inc
NSWMA	National Solid Waste Management Association
PCA	Portland Cement Association
PDI	Plumbing and Drainage Institute
SMACNA	Sheet Metal & Air Conditioning Contractors
UL	Underwriters Laboratories, Inc.



USBM  
USDCUnited States Bureau of Mines  
United States Department of Commerce**END OF SECTION 01090****SECTION 01100 PROJECT PROCEDURES**

1. **Signage and Safety:** The Contractor must post appropriate construction signs to advise the occupants and visitors of occupied facilities of the limits of construction work areas, hardhat areas, excavations, construction parking and staging areas, etc. Advertising signage by contractors, subcontractors, or suppliers is not allowed. The Contractor must maintain safe and adequate pedestrian and vehicular access to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, hospitals, fire, and police stations and like establishments. The Contractor must obtain written approval from the Owner ten Calendar Days before connecting to existing facilities or interrupting the services on site.
2. ~~**Required Project Sign:** For projects costing in excess of \$500,000, the Contractor must provide and install a project sign conforming to the requirements shown in Appendix IV. The Project Director will designate the wording for the sign.~~
3. **Barrier and Enclosures:**
  - (a) The Contractor shall secure the construction area per MIOSHA Standard 1159 (GI-86) and NFPA 70E.
  - (b) The Contractor shall secure the construction area as long as necessary and remove when no longer required adequate barriers, warning signs, warning tape or lights at all dangerous points throughout the Work for protection of property, workers, and the public. The Contractor must hold the State of Michigan harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the Work under the Contract.
4. **Construction Aids:**
  - (a) The Contractor must furnish, install, and maintain as long as necessary and remove when no longer required, safe and adequate scaffolding, ladders, staging, platforms, chutes, railings, hoisting equipment, etc., as required for proper execution of the Work. All construction aids must conform to Federal, State, and local codes or Laws for protection of workers and the public.
  - (b) **Debris Chute:** The Contractor must use a chute to lower debris resulting from their Work. The chute must be the enclosed type with its discharge directly into the truck or approved container.
  - (c) **Pumping and Drainage:** The Contractor must provide all pumping necessary to keep excavations and trenches free from water the entire period of Work on the Contract. The Contractor must construct and maintain any necessary surface drainage systems on the Work site so as to prevent water entering existing structures or to flow onto public or private property adjacent to the Agency's land, except for existing drainage courses or into existing drainage systems. The Contractor must prevent erosion of soils and blockage of any existing drainage system.

**END OF SECTION 01100****SECTION 01200 PROJECT MEETINGS**

1. **Pre-Construction Conferences:** The Project Director will schedule a pre-construction conference to be attended by the Professional, State Agency staff, and the Contractors. A project procedure as outlined in Form DTMB-0460, will be established for the Work during the pre-construction meeting. When no organizational meeting is called, the Contractor, before beginning any Work, must meet with the staff of the Agency and arrange a Work schedule for the Project. Once the Project has been started, the Contractor must carry it to completion without delay.
2. **Progress Meetings:** The Professional will schedule progress meetings to be held on the job site whenever needed to supply information necessary to prevent job interruptions, to observe the Work or to inspect completed Work. The Contractor must be represented at each progress meeting by persons with full authority to act for the Contractor in regard to all portions of the Work.

**END OF SECTION 01200**

## SECTION 01300 SUBMITTALS

### 1. Shop Drawings, Samples and Technical Submittals: .

#### 1.1 Contractor's Review: Before each submission, the Contractor must:

- (a) determine and verify all field measurements, quantities, dimensions, instructions for installation and handling of equipment and systems, installation requirements (including location, dimensions, access, fit, completeness, etc.), materials, color, catalog numbers and other similar data as to correctness and completeness, and
- (b) have reviewed and coordinated that technical Submittal with other technical submittals and the requirements of the Contract Documents.

#### 1.2 Notice of Variation: The Contractor must give the Professional specific written notice of any variation from the requirements of the Contract Documents.

#### 1.3 Contractor's Approval: The Contractor shall not submit unapproved submittals. Each submittal shall be stamped/certified to indicate that the submittal satisfies the requirements of the Contract Documents before submission to the Professional.

#### 1.4 Responsibility and Authority: Neither the Owner's authority to review any of the Submittals by the Contractor, nor the Owner's decision to raise or not to raise any objections about the Submittals, creates or imposes any duty or responsibility on the Owner to exercise any such authority or decision for the benefit of the Contractor/Subcontractor/Supplier, any surety to any of them or any other third party. The Contractor is not relieved of responsibility for errors or omissions in shop drawings, product data, samples, or similar submittals just because the Professional approved them for general design intent.

#### 1.5 Final As-Built/Record Documents and Submittals: The approved Submittals are a part of the final As-Built/Record Documents required for processing final payment to the Contractor.

#### 1.6 Submissions: Contractor must submit to the Professional:

- (a) Electronic files in pdf and if requested by the Professional, prints of all Shop Drawings
- (b) All required samples
- (c) Verified Time-Current-Characteristics (TCCs) of all overcurrent protective devices (OCPDs) rated 200A or greater. TCCs shall precisely match OCPDs listed in shop drawings. Additional TCCs for all OCPDs shall be submitted upon the request of the engineer.
- (d) Published and listed interrupting ratings of all OCPDs. Published ratings shall include the manufacturer's most current series rating chart.
- (e) Published bus bracing data for all switchboards, distribution panels and branch panelboards.
- (f) Library data for SKM Power Tools for Windows shall be submitted via electronic file upon the request of the Engineer. Library data shall be verified by the manufacturer when requested by the PSC. SKM Power Tools for Windows is a suite of software utilized by Electrical Engineers for the analysis of power distribution systems and meeting National Electrical Code requirements.
- (g) All required samples and
- (h) All other technical submittals (test results, test and safety procedures, O&M manuals, etc.) that are required by the Contract Documents.

#### 1.7 Professional's Review and Return: Professional's Review and Return: Submittals will be returned to the Contractor within fifteen Calendar Days. The Contractor is responsible for any time Delay and any cost incurred by the Professional, Contractor or Subcontractors/Suppliers as a result of resubmissions and re-reviews of a particular Submittal. The Contractor shall revise, and correct submittals returned for revision and resubmittal until approval by the Professional is achieved. All time consumed by the resubmissions and rereviews of a particular Submittal shall constitute time required to furnish that Submittal or shall represent Delays not justifying any increase in Contract Time or Contract Price, or both.

## 2. PROGRESS SCHEDULE:

### 2.1 SUMMARY

- A. The **Contractor** will submit CPM Progress Schedules to the **Owner** depicting its approach to prosecution of the Work. This includes but is not limited to the **Contractor's** approach to recovering schedule and managing the effect of changes, substitutions, and Delays on Work sequencing.
- B. The Progress Schedule will include the Rev. 0 Submittal (par. 2.14), Update Submittals (par. 2.15) and Revision Submittals (par. 2.16). Each Submittal will be assigned a unique number. For a resubmission, the initial number will be modified by the letter A, B, C, etc., as appropriate.
- C. Through the Progress Schedule, the **Owner** will seek to stay current on progress, updated Activity and Milestone Dates, and the **Contractor's** approach to Work remaining.
- D. References to the Critical Path Method (CPM) are to CPM construction industry standards that are consistent with the requirements of this Section.

## 2.2 RELATED SECTIONS

- A. Section 00700 General Conditions; and Section 00800 Supplementary Conditions. Section 00700 General Conditions; and Section 00800 Supplementary Conditions.

## 2.3 GLOSSARY OF TERMS

- A. Capitalized terms not already defined in any Division 0 Specification have the following intent and meanings:
  1. Milestone: A key point of progress, designating interim targets toward the Contract Times. They may pinpoint critical path foundations, key deliveries, building framing, start of MEP rough-in, building enclosure, partitions, interior finishes, conditioned space, commissioning stages, Substantial Completion, and other events of like import.
  2. Official Schedule: The most recent Revision Submittal returned to the **Contractor** as Resubmittal Not Required. The
  3. Rev. 0 Official Schedule is the *As-Planned* Schedule.
  4. Revision 0 Submittal: Progress Schedule submitted by the **Contractor** depicting the entire Work as awarded.
  5. Update Submittal: A monthly Progress Schedule update reflecting progress and minor adjustments on the Activities, sequencing and restraints for Work remaining.

## 2.4 QUALITY ASSURANCE

- A. The **Contractor** will obtain a written interpretation from the **Professional**, if the **Contractor** believes the selection of Activities, logic ties or restraints requires an interpretation of the Contract Documents. With each submission, the **Contractor** will point out by specific, written notation, any Progress Schedule feature that may reflect variations from any requirements of the Contract Documents.
- B. The **Contractor** is responsible to obtain information from each Subcontractor and Supplier when scoping their respective Activities, Values, logic ties and restraints.
- C. No review of any Progress Schedule by or on behalf of the Owner will relieve the Contractor from complying with the Contract Times and any required sequence of Work or from completing Work omitted from the Progress Schedule. No review will imply approval of any variation from or interpretation of the Contract Documents, unless approved by the Professional through a written interpretation or by means of a separate, written notation.

## 2.5 ALLOWANCES

- A. Work covered by Cash Allowances will be completed within the Contract Times. To the extent reasonable and consistent with the **Contractor's** plan, Work authorized by provisionary contingency allowances will be completed within the Contract Times. The Progress Schedule will incorporate the **Contractor's** best estimate of the Activities, logic and restraints required, using the information in the Contract Documents, or as indicated by the **Professional** in writing.

## 2.6 "OR EQUALS" AND SUBSTITUTIONS

- A. Activities in the Rev. 0 Progress Schedule will be based on materials and equipment required by the Contract Documents and will not reflect any "or equal" or substitute materials or equipment, even if the **Contractor** intends to pursue "or equal" and substitution proposals. This limitation also applies to any Means and Methods indicated in or required by the Contract Documents.

## 2.7 MEASUREMENT AND PAYMENT

- A. The Schedule of Values will include a Progress Schedule pay item. Fifteen percent (15%) of this pay item will be eligible for payment upon delivery of the complete Rev. 0 Submittal. The balance of this pay item will be eligible for payment, on a prorated basis, with each Request for Payment attaching an Update Submittal.

## 2.8 PROGRESS SCHEDULE SUBMITTALS

- A. Each Progress Schedule Submittal will consist of an electronic copy of the **Contractor's file**, a narrative and a PDF file of the project schedule report and plots, each file appropriately titled for the schedule version and date of publishing.
- B. The CPM scheduling software will be Primavera Project Planner®, SureTrak® or Microsoft Project®. In addition to the monthly update schedule submittal, Contractor shall provide prior to each Progress Meeting, a 2-week look ahead schedule extracted from the current overall schedule and providing sufficient additional activity detail to appropriately define the expected activity during the upcoming 2-week period.

## 2.9 PRINTOUTS

- A. Schedule Reports will include Activity (ID) code and description, duration, calendar, Early Dates, Late Dates and Total Float, all of which will comport with the requirements of paragraph 8.3.4 of Section 00700 General Conditions.

1. Late Finish Date for an Activity pinpointing a Contract Time will equal that Contract Time. Early Start Date for an Activity designating a Contract restraint will equal the proper Notice to Proceed date. Schedule Reports may or may not append CPM Plots (time-scaled Activity/logic).\
  2. For Precedence Diagram Method, separate Schedule Reports will tabulate, for each Activity, all preceding and succeeding logic types and lead times, whether CPM Plots displaying vertical logic ties are appended or not.
- B. CPM Schedule Plots will be plotted on a suitable time scale and identify the Contract Times, Critical Paths, and sub-Critical Paths. Activities will be shown on the Early Dates with Total Floats noted by Late Date flags.
- C. Line of Balance Plots will reflect industry practice for repetitive construction and will segregate the production lines for all trades within the hammock Activities.

## 2.10 NARRATIVE REQUIREMENTS

- A. In general, a narrative will describe the **Contractor's** approach to prosecution of the Work, subject to the requirements of the Contract Documents. Further, each narrative will list the Critical Path Activities and compare Early and Late Dates with Contract Times and Milestone Dates. The basis for restraint dates will be explained.
- B. For each Update Submittal, the narrative will compare current Dates to the respective Milestone Dates, describe changes in crewing and construction equipment and identify new Delays. For each Revision Submittal, the narrative also will itemize changes in Activities, logic ties and restraint dates made necessary by each change, Delay, schedule recovery, substitution and **Contractor**-initiated revision occurring since the previous Submittal.

## 2.11 ACTIVITY REQUIREMENTS

- A. The Progress Schedule will detail Work sequencing only to the extent necessary to allow the **Owner** to correlate percent complete, compare actual dates with Milestones and Contract Times and the data in Requests for Payment.
- B. Separate Activities will designate permits, construction, Submittal preparation/review (and resubmission and re-review, for same); MEP coordination drawings; deliveries; commissioning; and Punch List. Separate Activities will designate Owner-furnished items, interface with other work and the Owner and Professional's responsibilities.
- C. Activities will be detailed only to the extent required to show the transition of trade Work. Activities will detail the progression through site/excavation, foundations, building framing, start/completion of interior partitions, MEP rough-in, building enclosure, interior finishes, conditioned space, and commissioning.
1. Submittal Activities will segregate long-lead items, any item requiring structural access and other procurements that, in the **Contractor's** judgment, may bear on the rate of progress. Separate MEP coordination drawing Activities will be used for each floor. Beyond these requirements, it is not necessary to burden the Progress Schedule with Activities for less significant Submittals and deliveries.
  2. For multiunit Work (e.g., rough-in overhead MEP for each floor, etc.), detailed Activities will be shown for a typical (often, the first) unit). Other or follow-on units may be replicated, as appropriate, or modeled with a hammock Activity combining the sum total of the typical detailed Activities. Separate Activities, as may be suitable to the Divisions of Work involved, will be identified for single-unit Work. This requirement applies to such scope as Work in mechanical rooms, building framing, commissioning, etc.
  3. Activities will not combine separate or non-concurrent items of Unit Price or lump sum Work, Work in separate structures and Work in distinct areas, locations or floors within an area or structure; or rough-in and finish Work.
- D. Activity durations will equal the Business Days required to sufficiently complete the Work designated by the Activity (i.e., when finish-to-start successors may start, even if the Activity is not quite 100% complete). Installation Activities will last from twenty (20) to forty (40) Days.
- E. Activities will be assigned consistent descriptions and identification codes. Sort codes will group Activities by building or structure, floor or area, Change Order and Change Authorization and other meaningful schemes.

## 2.12 FLOAT TOLERANCES

- A. Any Progress Schedule with Early Dates after a Contract Time will yield negative Total and Contract Floats, whether shown/calculated or not. Any Revision Submittal with less than negative twenty (20) Days of Float will be returned as "Revise and Resubmit," unless a time extension is requested, or the **Owner** withholds liquidated damages or asserts intent to do so in the event schedule is not recovered.
- B. Floats calculated from the definitions given in Section 00020 Glossary supersede any conflicting Float values calculated within any early completion Progress Schedule.

## 2.13 REVISION 0 (Rev. 0) SUBMITTAL

- A. The complete Revision 0 Submittal will be due with the first Request for Payment. The Rev. 0 Submittal will show the Work as awarded, without Delays, "or equal" or substitutions, Change Orders or Change Authorizations.
1. The Rev. 0 narrative will detail the **Contractor's** management of the site (lay down, parking, etc.). Further, the Rev. 0 narrative will identify shifts, weekend Work, Activity calendars, Delays since award and all pending and anticipated "or equal" and substitution proposals.

- B. Once endorsed by the **Owner** and returned as "Resubmittal Not Required," the Rev. 0 Progress Schedule (or Rev. 0A, etc.) will be the As-Planned Schedule and the basis for Update Submittals until the Rev. 1 Official Schedule is established. Once the As-Planned Schedule is established, the **Owner** will select Milestones and note Milestone Early and Late Dates. As the Official Schedule evolves, Milestone Dates will be revised accordingly.
- C. If the **Owner** refuses to endorse the Rev. 0 Submittal (or Rev. 0A, for a resubmission) as "Resubmittal Not Required," the As-Planned Schedule will not be established. In that event, the **Contractor** will continue to submit Update and Revision Submittals reflecting progress and the **Contractor's** approach to remaining Work. The **Owner** will rely on the available Update and Revision Submittals, subject to whatever adjustments it determines appropriate.

#### 2.14 UPDATE SUBMITTALS

- A. Update Submittals with progress up to the closing date and updated Early and Late Dates for progress and remaining Activities will be due with each Request for Payment. As-built data will consist of actual start dates, percent complete, actual finish dates, changes, Delays, and other significant events occurring before the closing date.

#### 2.15 REVISION SUBMITTALS

- A. Progress Schedule Revisions will be submitted with the third Request for Payment and every two (2) months after that, or more often, if necessary due to schedule recovery or other Progress Schedule revisions. Revisions will revise the Update Submittal attached to the prior Request for Payment.
- B. Progress Schedule revisions will detail all impacts on pre-existing Activity scope, logic ties and restraint dates and reflect the Contractor's current approach to Work remaining. Revisions may be required because of changes in the Work, substitutions, schedule recovery and Delays.
- C. Once endorsed by the Owner and returned as "Resubmittal Not Required," a Revision Submittal becomes the Rev. 1, Rev. 2, etc. Official Schedule and the basis for subsequent Update Submittals until a more current Official Schedule is established. If the Owner refuses to endorse a Revision Submittal as "Resubmittal Not Required," the Contractor will continue to submit Update and Revision Submittals when and as required in this Section.

#### 2.16 RETROSPECTIVE DELAY ANALYSIS

- A. If the **Owner** refuses to endorse any Revision Submittal as "Resubmittal Not Required," the **Contractor** and **Owner** will use the latest Official Schedule when evaluating the effect of Delays on Contract Time and/or Contract Price. The procedure will consist of progressively revising the latest Official Schedule at key Revision Submittal closing dates. For each Progress Schedule iteration, slippage between actual Milestone Dates and Rev. 0 Milestone Dates will be correlated to Delays occurring solely in that iteration. Revisions affecting Work after any iteration will be included only to the extent consented by the **Owner** at that time and/or if confirmed by as-built progress.

- 2.17 Shop Drawings:** The Contractor shall deliver shop drawings of products, materials, assemblies, or equipment to the Professional.

<u>Item of Work</u>	<u>Section Number</u>
TESTING OF ELECTRICAL EQUIPMENT	26 01 26
BASIC MATERIALS AND METHODS	26 05 00
SWITCHBOARDS	26 24 13
PANELBOARDS	26-24-13
LIGHTING	26 50 00

- 2.18 Samples:** The Contractor must deliver all samples of material or equipment to the job site for examination by the State Agency and the Professional. Samples will be examined by the Professional for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The Contractor must furnish all Work in accordance with approved samples. The following general classifications of material and equipment require submission of samples. Samples of other items may be requested by the Professional at any time.

<u>Item of Work</u>	<u>Type of Sample</u>	<u>Section Number</u>
Switchboard	Copper braided shunt conductor	26 24 13

**END OF SECTION 01300**

## SECTION 01400 QUALITY CONTROL

1. **Testing Laboratory Services:** All tests required by the Owner must fulfill ASTM, ANSI, Commercial and other Standards for testing. The Contractor must submit a PDF of each test report to the Professional for evaluation and subsequent distribution. A printed copy of test reports shall be included in the O&M manual. The following general classifications of Work require submission of test reports and/or certificates of inspection. Additional submissions may be requested by the Professional at any time.

<u>Item of Work</u>	<u>Test Type</u>	<u>Section Number</u>
Electrical Power	Survey of through-floor conduits	26 05 00 and Sheet ED2.0
Electrical Power	Survey of transformer transition	26 24 13
Electrical Power	Testing & Maintenance of transformer and Primary Switches	26 01 26
Electrical Power	Startup and Commissioning tests	26 01 26
Emergency Lighting	Photometric measurements	26 50 00
Electrical Lighting	As-built drawings depicting luminaire locations	26 50 00

2. **Tests:** All tests shall be paid for by the Contractor.

### END OF SECTION 01400

## SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1. The Contractor must furnish and install all temporary facilities and controls required by the Work, must remove them from State property upon completion of the Work, and the grounds and existing facilities must be restored to their original condition.
2. If water or electricity is available in the area where Work will be performed, the Contractor will not be charged for reasonable use of these services for construction operation. The Contractor must pay costs for installation and removal of any temporary connections including necessary safety devices and controls. Use of services must not disrupt or interfere with operations of the State Agency.
3. **Temporary Sanitary Facilities:**

~~(a) **Portable Toilets:** The Contractor must provide and maintain a sufficient number of portable temporary toilets in locations approved by the State Agency. They must comply with all Federal, State, and local code requirements. The Contractor must maintain the temporary toilets in a sanitary condition at all times and must remove them when the Work under this Contract is complete. The Contractor's employees are not allowed to use any existing State toilet facility.~~

(b) **State Toilets:** If available, the State Agency will designate a permanent toilet facility on the premises for use by personnel employed in the Work. The Contractor must repair any damage to the toilet facility caused by their employees and maintain it in a clean and sanitary condition.

3. **Field Office:**

- (a) **On Site:** At the beginning of the Work, the Owner shall coordinate with the Contractor to establish a location for a field office and storage location acceptable to the Owner.
- (b) On-site trailers are not allowed.

5. **Temporary Heating:** If deemed necessary by the DTMB BOD Site Manager, the Contractor shall provide adequate temporary heaters to maintain the temperature in those areas of the building where Work is being conducted between 55 degrees F. and 70 degrees F.

### END OF SECTION 01500

## SECTION 01600 MATERIAL AND EQUIPMENT

1. The Contractor must furnish and be responsible for all materials, equipment, facilities, tools, supplies and utilities necessary for completing the Work. All materials and equipment must be provided as described in the Contract Documents and of good quality, free of defect and new and must be applied, installed, connected, erected, used, cleaned and conditioned following the manufacturer's and Suppliers' instructions.

2. **Delivery, Storage, and Handling:** All materials and equipment delivered to and used in the Work must be suitably stored and protected from the elements. The areas used for storage must only be those approved by the State Agency. The Owner assumes no responsibility for stored material. The ownership and title to materials will not be vested in the Owner before materials are incorporated in the Work unless payment is made by the Owner for stored materials and equipment. After delivery, before and after installation, the Contractor must protect materials and equipment against theft, injury, or damage from all causes. For all materials and equipment, the Contractor must provide complete information on installation, operation, and preventive maintenance.
  - (a) The Contractor must cover and protect bulk materials while in storage which are subject to deterioration because of dampness, the weather or contamination. The Contractor must keep materials in their original sealed containers, unopened, with labels plainly indicating manufacturer's name, brand, type, and grade of material and must immediately remove from the Work site containers which are broken, opened, watermarked and/or contain caked, lumpy, or otherwise damaged materials.
  - (b) The Contractor must keep equipment stored outdoors from contact with the ground, away from areas subject to flooding and covered with weatherproof plastic sheeting or tarpaulins.
  - (c) The Contractor must certify that any materials stored off-site are:
    - a) Stored on property owned or leased by the Contractor or owned by the agency.
    - b) Insured against loss by fire, theft, flood, or other hazards.
    - c) Properly stored and protected against loss or damage.
    - d) In compliance with the plans and specifications.
    - e) Specifically allotted, identified, and reserved for the project.
    - f) Itemized for tracking and payment.
    - g) Subject to these conditions until the items are delivered to the project site.

#### END OF SECTION 01600

### SECTION 01650 FACILITY START-UP

1. **Tests:** The complete installation consisting of the several parts of equipment and systems installed according to the requirements of the Contract Documents must be ready in all respects for use by the State Agency and must be subjected to a test at full operating conditions and pressures for normal conditions of use.
2. **Adjustments:** Contractor must adjust and replace the Work which is necessary to fulfill the requirements of the Contract Documents and to comply with the directions and recommendations of the manufacturer of the several parts of equipment, and to comply with all provisions of architectural and/or engineering drawings/specifications and all codes and regulations which may apply to the entire installation.
3. **Demonstration:** Contractor must provide an on-site demonstration and training of all systems operations to the Owner when it is substantially completed.

#### END OF SECTION 01650

### SECTION 01700 CONTRACT CLOSE-OUT

1. **Substantial Completion:** The Contractor must notify the Professional, the Project Director and the Agency when the Work will be substantially complete. If the Professional, Owner, and Agency agree that the project is Substantially Complete, the Professional and Project Director will inspect the Work. The Professional, upon determining that the Work, or a portion of the Work inspected, is substantially complete, will prepare a Punch List and will attach it to the respective Certificate of Substantial Completion. The Contractor must be represented on the job site at the time this inspection is made and thereafter must complete all Work by the date set for final acceptance by the Owner.
2. **Cleaning:**
  - (a) **Regular Cleaning:** The Contractor must remove all scrap or removed material, debris, or rubbish from the Project work site at the end of each working day and more frequently whenever the Owner Field Representative deems such material to be a hazard. The Contractor cannot discard materials on the grounds of the State Agency without the express permission of the Project Director. No salvage or surplus material may be sold on the premises of the State Agency. No burning of debris or rubbish is allowed. Any recyclable materials must be recycled, and the Contractor will be required to provide recycling plan.
  - (b) **Final Cleaning:** Before final acceptance by the State, the Contractor must clean all Work and existing surfaces, building elements and contents that were soiled by their operations and make repairs for any damage or blemish that was caused by the Work.

**END OF SECTION 01700**

**SECTION 01800 MAINTENANCE**

1. The Contractor is responsible for maintaining the following parts of Work in good order and proper working conditions and must take all necessary actions for their protection until they are placed for use by the Owner:

**END OF SECTION 01800**

**APPENDIX I**

**GLOSSARY**



## GLOSSARY

**Activity**– An element in the Progress Schedule establishing a requisite step, or the time and resources required, for completing the part of the Work associated with that Activity.

**Addenda**– Written instruments that are used by the Owner and/or Professional to incorporate interpretations or clarifications, modifications, and other information into the Bidding Documents. An Addendum issued after Bid opening to those Bidders who submitted a Bid, for the purpose of re-bidding the Work without re-advertising, is referred to as a **post-Bid Addendum**.

**Agency**- Any unit, section, division, department, or other instrumentality of the State that benefits from the Work.

**Alternate**– Refers to work specified in the Bidding Documents for which the Bidder must bid a Bid Price.

**Apparent Low Bidders**: Those Bidders whose Base Bid, when added to those specific Alternates the Owner intends to accept, yields the three lowest sums of Bid and Alternates. Additional Bidders may be considered Apparent Low Bidders if their Bid, when added to those specific Alternates the Owner intends to accept, yields a sum within 10% of the lowest of the Apparent Low Bidder's sum. If a qualified disabled veteran meets the requirements of the contract solicitation, provides acceptable responses to both Part One and Part Two of the Best Value Construction Bidder Evaluation to achieve a Best Value recommendation and with the veteran's preference is the lowest responsive, responsible, best value Bidder it is considered the Apparent Low Bidder.

**Archaeological Feature**– Any prehistoric or historic deposit of archaeological value, as determined by a representative of a State Agency that is duly authorized to evaluate such findings and render such judgments. An Archaeological Feature deposit may include, but is not limited to Indian habitations, ceremonial sites, abandoned settlements, treasure trove, artifacts, or other objects with intrinsic archaeological value and that relate to the history and culture of the State of Michigan. The Archaeological Features are listed under Section 00800 Supplementary Conditions.

**Authorized Technical Data**– Information and data contained in a report of exploration and tests of subsurface conditions. Also, any physical data (dimension, location, conditions, etc.) contained in those Drawings of physical conditions of existing surface and subsurface facilities.

**Best Value**- The bids will be evaluated for best value based on price and qualitative components that may include but are not limited to technical design, technical approach, quality of proposed personnel, and management plans, per PA 430 of 2012.

**Bid**– Written offer by a Bidder for the Work, as specified, which designates the Bidder's Base Bid and Bid Prices for all Alternates. The term *Bid* includes a *re-bid*.

**Bidder**– The Person acting directly, or through an authorized representative, who submits a Bid directly to the **Owner**.

**Bidding Documents**– The proposed Contract Documents as advertised, and all Addenda issued before execution of the Contract.

**Bid Price**– The Bidder's price for a lump sum item of work, or the product of the Bidder's unit price for an item of Unit Price Work times the quantity given on the Bid Form for that item.

**Bid Security**– A security serving as a guarantee that the Bidder will conform to all conditions.

**Bidding Requirements**–The Advertisement, Instructions to Bidders, Supplementary Instructions, Information for Bidders, Bid Form, Bid Form Attachments, and qualification submittals, as advertised and as modified by Addenda, and any other Section included within Division 0 of the Bidding Documents for the purpose of governing bidding and award of the Contract.

**Board**– The Administrative Board of the State of Michigan.

**Bond**– Security furnished by the **Contractor**, as required by the Contract Documents.

**Business Day**– Any Day except Saturdays, Sundays and holidays observed by the **Owner**.

**Bulletin**– A request used by the **Owner** to describe a change in the Work under consideration by the **Owner** and to request the **Contractor** to submit a proposal for the corresponding adjustment in Contract Price and/or Contract Time, if any.

**Calendar Day**– Every day shown on the calendar, Saturdays, Sundays, and holidays included.

**Cash Allowance**– An **Owner**-specified sum included within the Contract Price to reimburse the **Contractor** for the actual purchase/furnished cost of materials and/or equipment or other designated items, as specifically provided in the Contract Documents. Although the scope (e.g., the required quantity) of any Work covered by a Cash Allowance is sufficiently detailed in the Contract

Documents for the purposes of bidding the required labor costs, Subcontract costs, construction equipment costs and general conditions costs and Fee, it is understood that the required materials, equipment or other designated items are of uncertain purchase cost at the time of Bid or are yet to be specified in more detail by the **Professional** as to quality, appearance, durability, finish and such other necessary features affecting purchase price.

**Change Order**– A written order issued and signed by the **Owner**, which amends the Contract Documents for changes in the Work or an adjustment in Contract Price and/or Contract Time, or both.

**Construction Mechanic**– A skilled or unskilled mechanic, laborer, worker, helper, assistant, or apprentice working on a state project but shall not include executive, administrative, professional, office, or custodial employees.

**Contract Award**– The official action of the **Board**, the **Director-SFA** or the **Director-DCD** awarding the Contract to the **Contractor**.

**Contract Documents**– Written and graphic documents that form the legal agreement between the **Owner** and the **Contractor**, consisting of this document, completed Bid and Contract forms, terms and conditions of the contract, specifications, drawings, addenda, Notice of Award, Notice-to-Proceed and contract change orders.

**Contract Price**– The total compensation, including authorized adjustments, payable by the **Owner** to the **Contractor** (subject to provisions for Unit Price Work).

**Contract Times**–The Contract Times for the entire Work are the periods allowed, including authorized adjustments, for Substantial Completion and final completion of the Work. The Contract Times for a designated portion of the Work are the periods allowed for Substantial Completion and final completion of any such portion of the Work, as specified in the Contract Documents.

**Contractor**– Business enterprise with which the **Owner** has entered into the Contract.

**Correction Period**– A period during which the **Contractor** must, in accordance with the Contract Documents, (a) correct or, if rejected, remove, and replace Defective Work, and (b) maintain warranties for materials and equipment in full force and effect.

**Cost of the Work Involved**– The sum of all costs that would be, or were, necessarily incurred by the **Contractor** in providing any Work Involved with the related change, less the costs that would be, or would have been, incurred by the **Contractor** to provide such Work without the related change.

**Defective**– As determined by the Professional, an adjective which when referring to or when applied to the term “Work” refers to (a) Work not conforming to the Contract Documents or not meeting the requirements of an inspection, test, or approval, or (b) Work itemized in a Punch List which the **Contractor** fails to complete or correct within a reasonable time after issuance of the Punch List by the **Professional**.

**Delay**– Any act or omission or other event that in any manner adversely affects or alters the schedule, progress or completion of all or any part of the Work. Delay is a generic term intended to include deferral, stoppage, slow down, interruption and extended performance, and all related hindrance, rescheduling, disruption, interference, inefficiency and productivity and production losses.

**Department (DTMB)**– Department of Technology, Management and Budget of the State of Michigan.

**Director**- The Director of the **Department**.

**Director-SFA**- The Director of **DTMB** State Facilities Administration.

**Director-DCD**- The Director of **DTMB** State Facilities Administration, Design and Construction Division.

**Division**– Each of the numbered, distinct parts (starting with Division 0) into which the Specifications are divided.

**Drawings**– Part of the Contract Documents showing the Work. Drawings must neither serve nor be used as Shop Drawings.

**Emergency**– A condition affecting the safety or protection of persons, or the Work, or property at or adjacent to the site.

**State Facilities Administration (SFA)**-Entity in the **Department** responsible for design, construction, and operations and maintenance of facilities.

**Fee for the Work Involved (Fee)**– An established, percentage mark-up on the Cost of the Work Involved which is allowed to the **Contractor** for (a) reasonable administrative costs, and (b) negotiated, reasonable profit on the Cost of the Work Involved.

**Hazardous Material**– Asbestos containing materials (ACMs), Polychlorinated biphenyls (PCBs), petroleum products, such construction materials as paint thinners, solvents, gasoline, oil, etc., and any other like material the manufacture, use, treatment,

storage, transportation, or disposal of which is regulated by federal, state, or local Laws governing the protection of public health, natural resources, or the environment.

**Invitation To Bid (ITB)** - The solicitation document presenting the terms and conditions that will become part of the Contract when the Bid is accepted.

**Law(s)**– Means federal, state, and local statutes, ordinances, orders, rules and/or regulations.

**MCL**– The Michigan Compiled Laws of the State of Michigan.

**Means and Methods**– Includes means, methods, techniques, sequences and/or procedures applicable to the Work.

**Notice of Award**– Written notice accepting the Bid to the lowest responsive, responsible Bidder and designating the Contract Price (and establishing the Alternates accepted by the **Owner**).

**Notice-to-Proceed**– Written notice issued by the Project Director directing the Contractor to commence the construction activities and establishing the start date of the Contract Time.

**On-Site Inspection**– The **Professional's** on-site examination of the **Contractor's** completed or in progress Work to determine and verify to the Project Director that the quantity and quality of all Work complies with the requirements of the Contract Documents.

**Owner**– The State of Michigan, with whom the **Contractor** has entered into the Contract and for whom the Work is to be provided.

**Owner Field Representative**– A State employee or consultant, acting collaboratively with the Project Director, providing on-site, periodic observation and documentation of the Work for compliance with the Contract Documents.

**Partial Use**– The use, by the **Owner**, of a designated portion of the Work before accomplishing Substantial Completion of the entire Work. Partial Use does not mean Substantial Completion of the portion of the Work placed in use by the **Owner**.

**Person**–Individuals, partnerships, corporations, receivers, trustees, joint ventures or any other legal entity and any combinations of any of them.

**Political Subdivision**– Any county, city, village, or other local unit of the State, including any agency, department, or instrumentality of any such county, city, village, or other local unit.

**Post-Bid Submittal**– A Qualification Submittal required of the Bidder selected under Section 00100 - 22 before Contract Award, and which is used by the Owner in the evaluation of the Bid of the selected Bidder.

**Professional Services Contractor (PSC or Professional)**– The individual or business entity who has the authority to practice the design disciplines required by the Contract Documents. An Agency with appropriate licensing may replace the PSC in their role if a consultant is not used.

**Project**– The total construction, which includes the Work and possibly other work completed by others, as indicated in the Contract Documents.

**Project Director**- Designated State employee(s) (a) Responsible for directing and supervising the **Professional's** services during the period allowed for completion of the Work; and/or (b) Acting as representative for the **Owner** and for the enforcement of the Contract Documents, approving payment to the **Contractor** and coordinating the activities of the State, **Owner**, **Professional** and **Contractor**.

**Project Schedule**– Work Schedule that shows the **Contractor's** approach to planning, scheduling, and execution of the Work and that accurately portrays completed Work as to sequencing and timing, as provided in the Contract Documents.

**Project Specifications**– The Contract Documents organized into Divisions. "Technical Specifications" means Divisions of the Specifications consisting of technical descriptions of materials, equipment, construction systems, standards, and workmanship.

**Provisionary Allowance**– An amount included within the Contract Price to reimburse the **Contractor** for the cost to furnish and perform Work that is uncertain because, for example, it is indeterminate in scope and may not be shown or detailed in the Contract Documents.

**Punch List**– A list of minor items to be completed or corrected by the **Contractor**, any one of which do not materially impair the use of the Work for its intended purpose.

**Qualified Disabled Veteran (QDV)**- QDV as defined by Public Act 22 of 2010, MCL 18.1241.3 and supported by a DD214 Proof of Service and Discharge, a Veterans Administration rating decision letter, proof of disability (if the disability is not indicated on the DD214), and appropriate legal documents setting forth the 51% natural persons QDV ownership.

**Record Documents**– Drawings, Specifications, Addenda, Change Orders, Change Authorizations, Bulletins, inspection, test and approval reports, photographs, written clarifications and interpretations and all other documents recording, or annotated to show, all revisions and deviations between the as-built installation and the Contract Documents, all approved Submittals and all clarifications and interpretations.

**Records**– Books, reports, documents, electronic data, and other evidence relating to the bidding, award and furnishing and performance of the Work.

**Recycled Material**– Recycled paper products, structural materials made from recycled plastics, re-refined lubricating oils, reclaimed solvents, recycled asphalt and concrete, recycled glass products, re-treaded tires, ferrous metals containing recycled scrap metals and all other materials that contain (a) waste materials generated by a business or consumer, (b) materials that have served their intended purpose, and/or (c) materials that have been separated from solid waste for collection, recycling and disposition in the percentage determined by the State as provided by Law.

**Request for Payment**– The form provided by the **Owner** (Payment Request DTMB-0440) to be used by the **Contractor** in requesting payment for Work completed, which must enclose all supporting information required by the Contract Documents.

**Schedule of Values**– A schedule of pay items, which subdivides the Work into its various parts and which details, for each itemized part, cost and pricing information required for making payments for Work performed. The sum of all pay item costs in the Schedule of Values must equal the Contract Price for the Work.

**Shop Drawings**– Includes drawings, diagrams, illustrations, standard schedules, performance charts, instructions and other data prepared by or for the **Contractor** to illustrate some part of the Work, or by a Supplier and submitted by the **Contractor** to illustrate items of material or equipment.

**Soil Erosion and Sedimentation Control**– The planning, design and installation of appropriate Best Management Practices designed and engineered specifically to reduce or eliminate the off-site migration of soils via water runoff, wind, vehicle tracking, etc. Soil erosion and sedimentation control in the State of Michigan is regulated under The Natural Resources Environmental Protection Act; Soil Erosion and Sedimentation Control, 1994 PA 451, Part 91, as amended, MCL 324.9101 et seq. Soil erosion and sedimentation control associated with this Contract is monitored and enforced by the DTMB-SFA.

**State**– The State of Michigan in its governmental capacity, including its departments, divisions, agencies, boards, offices, commissions, officers, employees, and agents. Non-capitalized references to a state refer to a state other than the State of Michigan.

**State Construction Code**– The Michigan State Construction Code Act, 1972 PA 230, as amended, MCL 125.1501 et seq.

**Subcontractor**– A Person having an agreement with the Contractor to provide labor at the site and furnishing materials and/or equipment for incorporation into the Work.

**Submittals**– Includes technical Submittals, Progress Schedules and those other documents required for submission by the Contract Documents. The term "technical Submittal" includes Shop Drawings, brochures, samples, Operation and Maintenance (O&M) Manuals, test procedures and any other Submittal the Contract Documents require the **Contractor** to submit to demonstrate how the items covered, after installation or incorporation into the Work, will conform to the information given in the Contract Documents and be compatible with the design of the completed Work as a functioning whole as indicated in the Contract Documents.

**Substantial Completion**– The Work, or a portion of the Work designated in the Contract Documents as eligible for separate Substantial Completion, has been completed in accordance with the Contract Documents as determined by the PSC, to the extent that the **Owner** can use or occupy the entire Work, or the designated portion of the Work, for the use intended without any outstanding, concurrent Work at the site, except as may be required to complete or correct Punch List items.

**Supplier**– A manufacturer or fabricator, or a distributor, material man or vendor representing a manufacturer or fabricator, who has an agreement with the Contractor to furnish materials and/or equipment.

**Underground Utilities**– Pipelines, piping, conduit, duct, cables, wells, tanks, tunnels and appurtenances, or other similar facilities, installed underground to convey or support conveyance of potable water, sprinkler or irrigation water, fire protection systems, electricity, gases, steam, petroleum products, sewerage and drainage removal, telephone, communications, cable TV, traffic, or control systems.

**Unit Price Work**– The work involving specified quantities (i.e., related Work quantities) which, when performed, is measured by the **Professional** and paid using the measured quantities and unit prices contained in the Contract Documents. Performance of Unit

Price Work for undefined quantities is contingent upon conditions encountered at the site, as determined, and authorized by the **Professional**.

**Unit Price Work, Specific**– Work of specified and defined quantities (i.e., quantities are detailed in, and can be taken-off from, the Contract Documents) that when performed is measured by the **Professional** and paid based on the measured quantities and unit prices contained in the Contract Documents.

**Work**- (as in “*the Work*,” “*the entire Work*”)– The entire *completed Construction* required by the Contract Documents. The Work results from furnishing and performing all services, obligations, responsibilities, management, supervision, labor, materials, equipment, construction equipment, general conditions, permits, taxes, patent fees and royalties, testing, inspection and approval responsibilities, warranties, temporary facilities, small tools, field supplies, Bonds, insurance, mobilization, close-out, overhead and all connections, devices and incidental items of any kind or nature required and/or made necessary by the Contract Documents.

**Work Involved, any Work Involved**– Existing or prospective Work (a) reflected in any notice, proposal, or claim, or (b) reflected in changes ordered or in process, or (c) affected by Delay.

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**APPENDIX II**  
**SPECIAL WORKING CONDITIONS**

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## DTMB State Facilities Administration Security Clearance Request

### Contractor Instructions

The purpose of this document is to establish security and supervision requirements for contract personnel requiring access to Department of Technology, Management and Budget (DTMB) facilities.

A *DTMB Security Clearance form* must be completed before an individual is granted access to a facility. Access approval will be in effect for one year from date of DTMB Facility Services approval or until estimated project completion date (whichever occurs first).

Contract personnel agree to adhere to all DTMB rules and regulations which in DTMB facilities. Access will only be granted for normal business hours. (Monday-Friday, 8:00 a.m.-5:00 p.m. except State holidays). DTMB State Facilities Administration, Facility Services section must clear any exception in advance.

Contract personnel will be required to submit the following to DTMB Facility Services Manager or Regional Manager before entering a DTMB facility:

#### **Procedure for submitting form electronically (preferred and recommended)**

1. Complete a *DTMB Security Clearance form* (using Microsoft Excel) and include the following:
  - Company name
  - Company Contact name and phone number
  - Complete name (**last name first**) and date of birth for all employees requiring access.
2. Email completed form to DTMB Facility Manager for an individual building or DTMB Regional Facility Manager for multiple building requests.

#### **Procedure for submitted in person or mail delivery**

1. Complete a *DTMB Security Clearance form* (using Microsoft Excel) and include the following:
  - Company name
  - Company Contact name and phone number
  - Complete name (**last name first**) and date of birth for all employees requiring access.
2. Return completed form to DTMB Facility Manager for an individual building or DTMB Regional Facility Manager for multiple building requests.

**Note: This request must be received a minimum of 48 hours before entering a DTMB Facility.**

#### **DTMB Facility Access Criteria:**

1. Present pictured ID.
2. Name must appear on the clearance list.
3. Sign-in and wear a dated visitor's pass (*must be visibly displayed at all times*).
4. Return visitor pass to security desk at days end.

**Note: Individuals whose name does not appear on the clearance list are required to be signed in by a member of the DTMB Facility Services staff.**

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## DEPARTMENT OF STATE POLICE

The work comprising this Project will be performed at a State Police Post, and the contractor must comply with the following special working rules:

1. Contractor/Professional must submit a BACKGROUND AUTHORIZATION form (CJIS-008) for all employees providing names, driver's license numbers, birth dates, and additional information when requested on all persons expected to be employed on the Project site. Such form (CJIS-008) must be submitted directly to the Michigan State Police designee for name and fingerprint background check approval before any person's appearance at the site for work assignments.
2. Contractor will be allowed to work within or on State Police Post confines from 8:00 a.m. to 5:00 p.m. No work may be performed on Saturdays or Sundays without written permission from the Post Commander. The Post Commander or their designee may arrange other time schedules.
3. All employees of the contractor may be subject to individual body search each time they enter the Post. Packages or containers of any kind may be opened for inspection. Lunch boxes are not permitted inside the security perimeter. All employees of the contractor will be required to have identification cards or badges furnished by the contractor.
4. All trucks and other mobile equipment may be subject to inspection both on arrival and departure from the Post. Absolutely no fraternization between State Police personnel and contractor's employees will be tolerated.
5. Contractor must follow rules pertaining to security and parking as established by the Post Commander. Contractor must observe all off-limit restricted areas beyond which no unauthorized personnel may trespass. The contractor and their workers may leave the assigned work areas.
6. There will be no exchange, loaning, or borrowing of tools, equipment, or manpower between Post personnel and the contractor.
7. The assigned gate through which materials, equipment, and vehicles must be transported will be opened upon request between 8:00 a.m. and 5:00 p.m.
8. Sanitary facilities will be assigned by the Post Commander for the use of the contractor's employees.
9. Security personnel may be assigned to the working areas. They may inspect and search areas under construction at any time, including the contractor's equipment.
10. Areas for contractor's employee parking must be assigned only by the Post Commander. Remove all firearms, weapons, alcoholic beverages, or explosives from vehicles before enter Post property. Lock vehicles when not attended.
11. The Post Commander retains the right to revise these "Special Working Conditions" as required to meet Post needs.



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**APPENDIX III**  
**SPECIAL PROJECT PROCEDURES**

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## HAZARDOUS MATERIALS PROJECT PROCEDURES

1. The Contractor must use, handle, store, dispose of, process, transport and transfer any material considered a Hazardous Material in accordance with all federal, state, and local Laws. If the Contractor encounters material reasonably believed to be a Hazardous Material and which may present a substantial danger, the Contractor must immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions.
2. This project has been identified by the DTMB-SFA as having a possibility of containing Hazardous Waste materials to be legally removed from the Project job site to complete the Work as described in the Proposal and Contract. If removal of friable asbestos material is required, the Contractor must contact the Air Quality Division, Department of Environment, Great Lakes, and Energy, at **(517) 284-6773**, for a permit and furnish all training, labor, materials, services, insurance, and equipment necessary to carry out the removal operations of all Hazardous Materials from the Project job site, as identified by the Scope of Work, or encountered on the Project job site, in accordance with State and Federal Hazardous Waste Codes. A Contract Change Order will be written to modify the existing Contract to pay for the additional cost.
3. Environmental Hazards (air, water, land and liquid industrial) are handled by the Waste and Hazardous Materials Division, Michigan Department of Environment, Great Lakes, and Energy (EGLE) in carrying out the requirements of the Federal Environmental Protection Agency (EPA). For general information and/or a copy of the latest regulations and publications call (517) 335-2690.
4. The Michigan Occupational Safety and Health Administration (MIOSHA) provides protection and regulations for the safety and health of workers. The Department of Licensing and Regulatory Affairs provides for the safety of workers. The Department of Community Health provides for the health of workers (517/373-3740) (TDD 517/373-3573).
  - 4.1 Contractor must post any applicable State and/or Federal government regulations at the job site in a prominent location.
  - 4.2 Contractor must be responsible for training their workers in safe work practices and in proper removal methods when encountering hazardous chemicals.
5. Applicable Regulations:
  - 5.1 Natural Resources and Environmental Protection Act – PA 451 of 1994, as amended, including Part 111 – Hazardous Waste Management, Part 121 – Liquid Industrial Waste and Part 147 – PCB compounds.
  - 5.2 RCRA, 1976 - Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage, or disposal of hazardous wastes nationally.
  - 5.3 TSCA, 1979 – Toxic Substances Control Act: This statute regulates the generation, transportation, storage, and disposal of industrial chemicals such as PCBs.
6. Definitions: Hazardous substances are ignitable, corrosive, reactive, and/or toxic, based on their chemical characteristics.
  - 6.1 Under Federal and Michigan Law, a Small Quantity Generator of hazardous waste provides from 220 to less than 2,000 lbs./month or never accumulates 2,200 lbs. or more.
  - 6.2 A Generator size provider of hazardous waste provides 2,200 lbs. or more/month or accumulates above 2,200 lbs.
7. Disposals: To use an off-site hazardous waste disposal facility, the Contractor must use the Uniform Hazardous Waste Manifest (shipping paper). Small quantities of hazardous waste may not be disposed of in sanitary landfills used for solid waste.
8. Federal, state, and local Laws and regulations may apply to the storage, handling and disposal of Hazardous Materials and wastes at each State Agency. Contact the **Environmental Assistance Center** of the Michigan

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Department of Environment, Great Lakes, and Energy (EGLE) at **1-800-662-9278**, Fax to: 517-241-0673 or e-mail to: [DEQ-EAD-env-assist@michigan.gov](mailto:DEQ-EAD-env-assist@michigan.gov) for general EGLE information including direct and referral assistance on air, water and wetlands permits; contaminated site clean-ups; underground storage tank removals and remediation; hazardous and solid waste disposal; pollution prevention and recycling; and compliance-related assistance. The Center provides businesses, municipalities, and the public with a single point of access to EGLE's environmental programs.

## **ASBESTOS ABATEMENT PROJECT PROCEDURES**

Should this Work require the renovation or demolition of a building or structure initially constructed on or prior to 1980, the Contractor will use the attached copy of a Comprehensive Asbestos Building Survey for those portions of the building or structure being impacted and must plan his or her work to minimize disturbance of any known or assumed asbestos containing materials (ACM). In addition, if this building or structure was constructed on or prior to 1980, the Contractor's On-Site Superintendent and all Subcontractor On-Site Superintendents for trades that could potentially disturb known or assumed ACM, must, as a minimum, have and provide documentation of current Asbestos Awareness Training.

If the Comprehensive Asbestos Building Survey identifies known or assumed ACM that will potentially be disturbed as a part of the Contractor's renovation or demolition activities, the Contractor must remove, transport, and dispose of these materials at no additional cost to the Owner and prior to any other work taking place within the immediate vicinity of said material. If required, the Contractor must provide the Owner a minimum of 10 working day notification prior to the start of any asbestos abatement activities with abatement in occupied buildings being completed even if they will be conducted during off hours (nights, weekends, and state holidays).

If the Contractor encounters a suspected ACM that was not previously identified within the Comprehensive Asbestos Building Survey, the Contractor must immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions. If, after providing Owner notification, the Contractor is directed to sample and/or remove the suspected ACM in question, a Contract Change Order will be written to modify the existing Contract to pay for the additional cost. Any abatement shall be completed in accordance with the requirements of this Section.

If removal of ACM is required, removal must be completed by a contractor currently licensed to remove asbestos by the State of Michigan, Department of Licensing and Regulatory Affairs (DLARA) Asbestos Program and abatement must be performed in accordance with all federal, state, and local Laws and Regulations. Prior to commencing any asbestos abatement activities, the licensed abatement contractor must submit, as required by Federal, State and Local Laws and Regulations, a "Notification of Intent to Renovate/Demolish" to both the State of Michigan, Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division and to the DLARA, Asbestos Program, to comply with National Emission Standards for Hazardous Air Pollutants (NESHAP), and the Clean Air Act (CAA). All regulated ACM must be disposed of at an approved Type II (general refuse) landfill and must be in leak-tight wrapping or containers. ACM that is non friable and is not in poor condition or will not become regulated ACM at any time can be disposed of in a Type III (construction debris) landfill.

At the completion of each abatement activity, the Contractor must perform clearance testing in accordance with National Institute for Occupational Safety and Health (NIOSH) 582 "Sampling and Evaluating Airborne Asbestos Dust". All air samples shall indicate concentrations of less than 0.01 fibers/cc for clearance to be met. Clearance testing shall be performed by a third-party Asbestos Consultant. The Asbestos Consultant selected by the Contractor shall be experienced and knowledgeable about the methods for asbestos air sampling and be able to select representative numbers and locations of samples. It is mandatory that the Asbestos Consultant's on-site hygienist performing sampling and analysis have certification that he/she has passed a NIOSH 582 or equivalent course.

The NESHAP asbestos regulations, notification form, guidelines and fact sheets are available on EGLE's web site [www.michigan.gov/egle](http://www.michigan.gov/egle) under heading Air; then click on Compliance; then click on Asbestos NESHAP Program. For guidelines on submitting notifications pursuant to the Asbestos Contractors Licensing Act, contact the DLARA, Occupational Health Division, Asbestos Program at (517) 322-1320 or visit DLARA's web site [www.michigan.gov/asbestos](http://www.michigan.gov/asbestos).

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## LEAD ABATEMENT PROJECT PROCEDURES

Should this Work require the renovation or demolition of a building or structure, the workers are assumed to be exposed to lead or materials containing lead above acceptable levels until proven otherwise through personal air sampling and analysis. The Contractor shall take all steps necessary to assure that his/her employees, are not exposed to lead at concentrations greater than the Permissible Exposure Limit as per the State of Michigan Department of Licensing and Regulatory Affairs Occupational Health Standards Part 603 "Lead Exposure in Construction". In addition, the Contractor shall convey this same requirement to all subcontractors that may be under his/her control.

The employer shall comply with the Michigan Lead Abatement Act, as amended, and the Lead Hazard Control rules and must communicate information concerning lead hazards according to the requirements of Michigan Occupational Safety and Health Administration (MIOSHA) Part 603 and the Occupational Safety and Health Administration's (OSHA's) Hazard Communication Standard for the construction industry, 29 CFR 1926.59, including but not limited to safety equipment (e.g. personal fit-tested and approved respirators and protective clothing), worker rotation (on a short-cycle and regular basis), working practices (e.g. sanding, cutting, grinding, abraded, burning and heat-gun stripping of lead based paint are not allowed), the requirements concerning warning signs and labels, Safety Data Sheets (SDS), and employee information and training. Employers shall comply with the requirements of 29 CFR 1926.62(l) - Employee Information and Training.

If lead or materials containing lead will be disturbed as a part of the work to be performed, the Contractor must remove, transport, and dispose of these materials at no additional cost to the Owner and prior to any other work taking place within the immediate vicinity of said material. The Contractor must provide the Owner a minimum 10 working day notification prior to the start of any lead abatement activities with abatement in occupied buildings being completed even if they will be conducted during off hours (nights, weekends, and state holidays). Abatement is defined as an activity specifically designed to permanently remove lead paint, lead-contaminated dust or other lead containing materials, the installation of a permanent enclosure or encapsulation of lead paint or other lead containing materials, the replacement of lead-painted surfaces or fixtures, the removal or covering of lead-contaminated soil, and any preparation, cleanup, disposal, and post-abatement clearance testing associated with these activities. Renovation, remodeling, landscaping, or other activity, that is not designed to permanently eliminate lead paint hazards, but is instead designed to repair, restore, or remodel a structure, or housing unit even though the activity may incidentally result in a reduction or elimination of a lead paint hazard is not considered abatement.

If abatement of lead or materials containing lead is required, abatement must be completed by a qualified Lead Abatement Contractor. In addition, Specifications for the Lead Abatement should be based upon a Lead Inspection/Risk Assessment report. The Lead Inspection/Risk Assessment report and clearance testing upon completion should be performed by a Certified Inspector or Risk Assessor. Lead abatement including clearance testing shall be performed in accordance with the State of Michigan, Lead Abatement Act, Part 54A Lead Abatement and with all other federal, state, and local Laws and Regulations that may apply.

For additional information about certifications, guidance, and regulations for lead hazard control activities, visit [www.michigan.gov/lead](http://www.michigan.gov/lead).

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**APPENDIX IV**  
**STATE OF MICHIGAN PREVAILING WAGE SCHEDULES**



**STATE OF MICHIGAN**  
**Informational Sheet: Prevailing Wages on State Projects**

**General Information Regarding Fringe Benefits**

**Certain** fringe benefits **may** be credited toward the payment of the Prevailing Wage Rate:

- If a fringe benefit is paid directly to a construction mechanic
- If a fringe benefit contribution or payment is made on behalf of a construction mechanic
- If a fringe benefit, which may be provided to a construction mechanic, is pursuant to a written contract or policy
- If a fringe benefit is paid into a fund, for a construction mechanic

When a fringe benefit is not paid by an hourly rate, the hourly credit will be calculated based on the annual value of the fringe benefit divided by 2080 hours per year (52 weeks @ 40 hours per week).

The following is an example of the types of fringe benefits allowed and how an hourly credit is calculated:

Vacation	40 hours X \$14.00 per hour = \$560/2080 =	\$0.27
Dental insurance	\$31.07 monthly premium X 12 mos. = \$372.84 /2080 =	\$.18
Vision insurance	\$5.38 monthly premium X 12 mos. = \$64.56/2080 =	\$.03
Health insurance	\$230.00 monthly premium X 12 mos. = \$2,760.00/2080 =	\$1.33
Life insurance	\$27.04 monthly premium X 12 mos. = \$324.48/2080 =	\$.16
Tuition	\$500.00 annual cost/2080 =	\$.24
Bonus	4 quarterly bonus/year x \$250 = \$1000.00/2080 =	\$.48
401k Employer Contribution	\$2000.00 total annual contribution/2080 =	\$.96
<b>Total Hourly Credit</b>		<b>\$3.65</b>

Other examples of the types of fringe benefits allowed:

- Sick pay
- Holiday pay
- Accidental Death & Dismemberment insurance premiums

The following are examples of items that **will not** be credited toward the payment of the Prevailing Wage Rate

- Legally required payments, such as:
  - Unemployment Insurance payments
  - Workers' Compensation Insurance payments
  - FICA (Social Security contributions, Medicare contributions)
- Reimbursable expenses, such as:
  - Clothing allowance or reimbursement
  - Uniform allowance or reimbursement
  - Gas allowance or reimbursement
  - Travel time or payment
  - Meals or lodging allowance or reimbursement
  - Per diem allowance or payment
- Other payments to or on behalf of a construction mechanic that are not wages or fringe benefits, such as:
  - Industry advancement funds
  - Financial or material loans



**STATE OF MICHIGAN**  
**Informational Sheet: Prevailing Wages on State Projects**

**OVERTIME PROVISIONS for MICHIGAN PREVAILING WAGE RATE COMMERCIAL SCHEDULE**

- Overtime is represented as a nine character code. Each character represents a certain period of time after the first 8 hours Monday thru Friday.

	Monday thru Friday	Saturday	Sunday & Holidays	Four 10s
First 8 Hours		<b>4</b>	<b>8</b>	<b>9</b>
9th Hour	<b>1</b>	<b>5</b>		
10th Hour	<b>2</b>	<b>6</b>		
Over 10 hours	<b>3</b>	<b>7</b>		

Overtime for Monday thru Friday after 8 hours:

the 1st character is for time worked in the 9th hour (8.1 - 9 hours)  
the 2nd character is for time worked in the 10th hour (9.1 - 10 hours)  
the 3rd character is for time worked beyond the 10th hour (10.1 and beyond)

Overtime on Saturday:

the 4th character is for time worked in the first 8 hours on Saturday (0 - 8 hours)  
the 5th character is for time worked in the 9th hour on Saturday (8.1 - 9 hours)  
the 6th character is for time worked in the 10th hour (9.1 - 10 hours)  
the 7th character is for time worked beyond the 10th hour (10.01 and beyond)

Overtime on Sundays & Holidays

The 8th character is for time worked on Sunday or on a holiday

Four Ten Hour Days

The 9th character indicates if an optional 4-day 10-hour per day workweek can be worked **between Monday and Friday without paying overtime after 8 hours worked, unless otherwise noted in the rate schedule. To utilize a 4 ten workweek, notice is required from the employer to employee prior to the start of work on the project.**

- Overtime Indicators Used in the Overtime Provision:

H - means TIME AND ONE-HALF due  
X - means TIME AND ONE-HALF due after 40 HOURS worked  
D - means DOUBLE PAY due  
Y - means YES an optional 4-day 10-hour per day workweek can be worked without paying overtime after 8 hours worked  
N - means NO an optional 4-day 10-hour per day workweek *cannot* be worked without paying overtime after 8 hours worked

- EXAMPLES:

HHHHHHHDN - This example shows that the 1½ rate must be used for time worked after 8 hours Monday thru Friday (characters 1 - 3); for all hours worked on Saturday, 1½ rate is due (characters 4 - 7). Work done on Sundays or holidays must be paid double time (character 8). The N (character 9) indicates that 4 ten-hour days is not an acceptable workweek at regular pay.

XXXHHHDY - This example shows that the 1½ rate must be used for time worked after 40 hours are worked Monday thru Friday (characters 1-3); for hours worked on Saturday, 1½ rate is due (characters 4 – 7). Work done on Sundays or holidays must be paid double time (character 8). The Y (character 9) indicates that 4 ten-hour days is an acceptable alternative workweek.



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**ENGINEERS - CLASSES OF EQUIPMENT LIST**

**UNDERGROUND ENGINEERS**

**CLASS I**

Backfiller Tamper, Backhoe, Batch Plant Operator, Clam-Shell, Concrete Paver (2 drums or larger), Conveyor Loader (Euclid type), Crane (crawler, truck type or pile driving), Dozer, Dragline, Elevating Grader, End Loader, Gradall (and similar type machine), Grader, Power Shovel, Roller (asphalt), Scraper (self propelled or tractor drawn), Side Broom Tractor (type D-4 or larger), Slope Paver, Trencher (over 8' digging capacity), Well Drilling Rig, Mechanic, Slip Form Paver, Hydro Excavator.

**CLASS II**

Boom Truck (power swing type boom), Crusher, Hoist, Pump (1 or more 6" discharge or larger gas or diesel powered by generator of 300 amps or more, inclusive of generator), Side Boom Tractor (smaller than type D-4 or equivalent), Tractor (pneu-tired, other than backhoe or front end loader), Trencher (8' digging capacity and smaller), Vac Truck.

**CLASS III**

Air Compressors (600 cfm or larger), Air Compressors (2 or more less than 600 cfm), Boom Truck (non-swinging, non-powered type boom), Concrete Breaker (self-propelled or truck mounted, includes compressor), Concrete Paver (1 drum, ½ yard or larger), Elevator (other than passenger), Maintenance Man, Mechanic Helper, Pump (2 or more 4" up to 6" discharge, gas or diesel powered, excluding submersible pump), Pumpcrete Machine (and similar equipment), Wagon Drill Machine, Welding Machine or Generator (2 or more 300 amp or larger, gas or diesel powered).

**CLASS IV**

Boiler, Concrete Saw (40HP or over), Curing Machine (self-propelled), Farm Tractor (w/attachment), Finishing Machine (concrete), Firemen, Hydraulic Pipe Pushing Machine, Mulching Equipment, Oiler (2 or more up to 4", exclude submersible), Pumps (2 or more up to 4" discharge if used 3 hrs or more a day-gas or diesel powered, excluding submersible pumps), Roller (other than asphalt), Stump Remover, Vibrating Compaction Equipment (6' wide or over), Trencher (service) Sweeper (Wayne type and similar equipment), Water Wagon, Extend-a-Boom Forklift.

**HAZARDOUS WASTE ABATEMENT ENGINEERS**

**CLASS I**

Backhoe, Batch Plant Operator, Clamshell, Concrete Breaker when attached to hoe, Concrete Cleaning Decontamination Machine Operator, Concrete Pump, Concrete Paver, Crusher, Dozer, Elevating Grader, Endloader, Farm Tractor (90 h.p. and higher), Gradall, Grader, Heavy Equipment Robotics Operator, Hydro Excavator, Loader, Pug Mill, Pumpcrete Machines, Pump Trucks, Roller, Scraper (self-propelled or tractor drawn), Side Boom Tractor, Slip Form Paver, Slope Paver, Trencher, Ultra High Pressure Waterjet Cutting Tool System Operator, Vactors, Vacuum Blasting Machine Operator, Vertical Lifting Hoist, Vibrating Compaction Equipment (self-propelled), and Well Drilling Rig.

**CLASS II**

Air Compressor, Concrete Breaker when not attached to hoe, Elevator, End Dumps, Equipment Decontamination Operator, Farm Tractor (less than 90 h.p.), Forklift, Generator, Heater, Mulcher, Pigs (Portable Reagent Storage Tanks), Power Screens, Pumps (water), Stationary Compressed Air Plant, Sweeper, Water Wagon and Welding Machine.





**STATE OF MICHIGAN**  
**Informational Sheet: Prevailing Wages on State Projects**

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**CARPENTER CRAFT JURISDICTION**

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Michigan recognizes the Carpenters for any and all work related to weatherization that has historically been the work of the Carpenter. This work shall include, but not be limited to: all work defined under the Federal Weatherization Assistance Program.

The jurisdiction of Carpenters, as to all work that has historically and traditionally been performed consisting of the milling, fashioning, joining, assembling, erecting, fastening or dismantling of all materials of wood, plastic, metal, fiber, cork, or composition and all other substitute materials, as well as the handling, cleaning, erecting, installing and dismantling of all machinery, equipment and all materials used by Carpenters.

The jurisdiction, therefore, extends over the following divisions and subdivisions of the trade: Carpenters and Joiners, Millwrights, Pile Drivers, Bridge, Dock and Wharf Carpenters, Underpinners, Timbermen, and Core-drillers, Shipwrights, Boat Builders, Ship-hand, Stair-Builders, Millmen, Wood and Resilient Floor Decorators, Floor Finishers, Carpet-layers, Shinglers, Siders, Insulators, Acoustic and Drywall Applicators, Sharers and House Movers, Loggers, Lumber and Sawmill Workers, Reed and Rattan Workers, Shingle Weavers, Casket and Coffin Makers, Railroad Carpenters and Car Builders, regardless of material used and all those engaged in the operation of woodworking or other machinery required in fashioning, milling or manufacturing of products used in the trade, and the handling, erecting and installing materials on any of the above divisions or sub-divisions, burning, welding and rigging incidental to the trade. When the term "Carpenter and Joiner" is used, it shall mean all the subdivisions of the trade. The trade autonomy of Carpenters therefore extends over the divisions and subdivisions of the trade, which are set forth as follows:

- (a) The framing, erecting and prefabrication of roofs, partitions, floors and other parts of buildings of wood, metal, plastic or other substitutes; application of all metal flashing used for hips, valleys and chimneys; the erection of Stran Steel section or its equal. The building and setting of all forms and centers for brick and masonry. The fabrication and erection of all forms for concrete and decking, the dismantling of same (as per International Agreement) when they are to be re-used on the job or stored for re-use. The cutting and handling of all falsework for fireproofing and slabs. Where power is used in the setting or dismantling of forms, all signaling and handling shall be done by carpenters. The setting of templates for anchor bolts for structural members and for machinery, and the placing, leveling and bracing of these bolts. All framing in connection with the setting or metal columns. The setting of all bulkheads, footing forms and the setting of and fabrication of, screeds and stakes for concrete and mastic floors where the screed is notched or fitted, or made up of more than one member. The making of forms for concrete block, bulkheads, figures, posts, rails, balusters and ornaments, etc.
- (b) The handling and erecting of rough material and drywall, the handling, assembly, setting and leveling of all fixtures, display cases, all furniture such as tables, chairs, desks, coat racks, etc., all de-mountable or moveable partitions such as Von wall, E Wall, Steel Case, Herman Miller, Haworth, American Seating, Westinghouse, Lazy Boy, rosewood, etc. All rebuilding, remodeling and setting up of all kinds of partitions, finished lumber, metal and plastic trim to be erected by Carpenters shall be handled from the truck or vehicle delivering same to the job by Carpenters.



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**CARPENTER CRAFT JURISDICTION**

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- (c) The building and moving of all scaffolding runways and staging where carpenters' tools are used, the building from the ground up of all scaffolds over fourteen (14) feet in height including metal and specially designed scaffolding. The building and construction of all hoists and derricks made of wood; the making of mortar boards, boxes, trestles, all shoring, razing and moving of buildings. Lift type trucks are to be considered a tool of the trade. Metal siding and metal roofing fall within the scope of jurisdiction for the carpenters.
- (d) The cutting or framing and fireproofing of the openings for pipes, conduits, ducts, etc., where they pass through floors, partitions, walls, roofs or fixtures composed in whole or in part of wood. The laying out of making and installation of all inserts and sleeves for pipes, ducts, etc., where carpenters' tools and knowledge are required. The making and installing of all wooden meter boards, crippling and backing for fixtures. The welding of studs and other fastenings to receive material being applied by carpenters.
- (e) The installation of all grounds, furring or stripping, ceilings and sidewalks, application of all types of shingling and siding, etc.
- (f) The installation of all interior and exterior trim or finish of wood, aluminum, kalamein, hollow or extruded metal, plastic, doors, transoms, thresholds, mullions and windows. The setting of jambs, bucks, window frames of wood or metal where braces or wedges are used. The installation of all wood, metal or other substitutes of casing, molding, chair rail, wainscoting, china closets, base of mop boards, wardrobes, metal partitions as per National Decisions or specific agreements, etc. The complete laying out, fabrication and erection of stairs. The making and erecting of all fixtures, cabinets, shelving, racks, louvers, etc. The mortising and application of all hardware in connection with our work. The sanding and refinishing of all wood, cork or composition floors to be sanded or scraped, filled, sized and buffed, either by hand or power machines. The assembling and setting of all seats in theaters, halls, churches, schools, auditorium, grandstands and other buildings. All bowling alley work.
- (g) The manufacture, fabrication and installation of all screens, storm sash, storm doors and garage doors; the installation of wood, canvas, plastic or metal awnings or eye shades, door shelters, jalousies, etc. The laying of wood, wood block and wood composition in floors.
- (h) The installation of all materials used in drywall construction, such as plasterboard, all types of asbestos boards, transite and other composition board. The application of all material which serves as base for acoustic tile, except plaster. All acoustical applications as per National Agreement or specific agreement.
- (i) The building and dismantling of all barricades, hand rails, guard rails, partitions and temporary partitions. The erection and dismantling of all temporary housing on construction projects.
- (j) The installation of rock wool, cork and other insulation material used for sound or weatherproofing. The removal of caulking and placing of staff bead and brick mold and all Oakum caulking, substitutes, etc., and all caulking in connection with carpentry work.
- (k) The installation of all chalk boards/marker boards.



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**CARPENTER CRAFT JURISDICTION**

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- (l) The operation of all hand operated winches used to raise wooden structures.
- (m) The erection of porcelain enameled panels and siding.
- (n) The unloading and distribution of all furnished, prefabricated and built-up sections such as door bucks, window frames, cupboards, cabinets, store fixtures, counters and show cases or comparably finished or prefabricated materials, to the job sites or points of installation as used in the construction, alteration and remodeling industry.
- (o) The handling of doors, metal, wood or composite, partitions and other finished bulk materials used for trim from the point of delivery.
- (p) All processing of these materials and handling after processing.
- (q) The making up of panels and fitting them into walls, all bracing and securing, all removal of panels from the casting including all braces, walers, hairpins, etc.
- (r) The handling and setting of all metal pans and sections from the stock piles of reasonable distance as required by job needs shall be performed by carpenters. The stripping of such metal pans, panels or sections is to be performed by carpenters.
- (s) The sharpening of all carpenter hand or power tools, or those used by carpenters.
- (t) The layout, fabrication, assembling of and erection and dismantling of all displays made of wood, metal, plastic, composition board or any substitute material; the covering of same with any type of material, the crating and un-crating, the handling from the point of unloading and back to the point of loading of all displays and other materials or components.
- (u) The same shall apply to all other necessary component parts used for display purposes such as turntables, platforms, identification towers and fixtures, regardless of how constructed, assembled or erected or dismantled.
- (v) The make-up, handling, cutting and sewing of all materials used in buntings, flags, banners, decorative paper, fabrics and similar materials used in the display decorative industry for draperies and back drops. The decorative framing of trucks, trailers and autos used as floats or moving displays. The slatting of walls to hand fabrics and other decorative materials, drilling of all holes to accommodate such installations. Setting up and removal of booths constructed of steel or aluminum tubing as stanchions, railings, etc., handling and placing of furniture, appliances, etc., which are being used to complete the booth at the request of the exhibitor. Fabricating and application of leather, plastic and other like materials used for covering of booths. The handling of all materials, fabricating of same. The loading and unloading, erecting and assembling at the exhibit of show area, also in or out of storage when used in booth decorations.



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**CARPENTER CRAFT JURISDICTION**

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- (w) A display shall be construed as any exhibit or medium of advertising, open to private or public showing, which is constructed of wood, metal, plastic or any other substitute to accomplish the objectives of advertising or displaying.
- (x) Handling, fitting, draping, measuring and installation of fixtures and other hardwares for draperies, all manner of making, measuring, repairing, sizing, hanging and installation of necessary fixtures and hardware for shades and Venetian blinds.
- (y) Work consisting of cutting and/or forming of all materials in preparation for installing of floors, walls and ceilings; the installation of all resilient floor and base; wall and ceiling materials to include cork, linoleum, prefabricated, laminated, rubber, asphalt, vinyl, metal, plastic, seamless floors and all other similar materials in sheet, interlocking liquid or tile form; the installation of all artificial turf, the installation, cutting and/or fitting of carpets; installation of padding, matting, linen crash and all preformed resilient floor coverings; the fitting of all devices for the attachment of carpet and other floor, wall and ceiling coverings; track sewing of carpets, drilling of holes for sockets and pins, putting in dowels and slats; and all metal trimmings used; the installation of all underlayments, sealants in preparation of floors, walls and ceilings, the unloading and handling of all materials to be installed and the removal of all materials in preparing floors when contracted for by the employer, shall be done only by employees covered under this Agreement.
- (z) The installation of all sink-tops and cabinets, to include all metal trim and covering for same. All cork, linoleum, congo-wall, linewall, veos tile, plexiglass, vinawall tile, composition tile, plastic tile, aluminum tile and rubber in sheets or tile form and the application thereof. All bolta-wall and bolta-wall tile and similar products.
- (aa) The handling and placing of all pictures and frames and the assembly of bed frames and accessories. The hanging and placing of all signage.
- (bb) The installation of all framework partitions and trim materials for toilets and bathrooms made of wood, metal, plastics or composition materials; fastening of all wooden, plastic or composition cleats to iron or any other material for accessories.
- (cc) The erection of cooling towers and tanks.
- (dd) The setting, lining, leveling and bracing of all embedded plates, rails and angles. The setting of all stay in place forms.
- (ee) Environmental: Clean room, any type of environmental chamber, walk in refrigerated coolers and all refrigerated rooms or buildings.



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**CARPENTER CRAFT JURISDICTION**

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**PILE DRIVING AND CAISSON DRILLING**

(ff) All unloading, handling, signaling and driving of piles, whether wood, steel, pipe, beam pile, composite, concrete or molded in place, wood and steel sheeting, cofferdam work, trestle work, dock work, floating derricks, caisson work, foundation work, bridge work, whether old or new, crib work, pipe line work and submarine work. Cutting of all wood, steel or concrete pile, whether by machine or hand; welding and cutting, peeling, and heading of all wood pile, steel sheeting and wood sheeting. The erecting and dismantling of all pile driving rigs, also derricks whether on land or water; also the moving, shoring and underpinning of all buildings. The loading and unloading of all derricks, cranes and pile driving materials. The tending, maintenance and operation of all valves pertaining to the operation of driving of pile. All diving and tending essential to the completion of jurisdictional claims.

All work done in the established yards of the Company and all work not enumerated above, shall be handled and manned as the Employer decides.

The pile driver will unload all material shipped in by rail from the point that the rail car is spotted.

All cleaning and preparation of all piling prior to driving.

The welding and attachment of all boot plates, pile points, splice plates, connectors, rock crosses, driving crosses, driving rigs, point reinforcements and overboots.

The construction, reconstruction, repair, alteration, demolition and partial or complete removal of all marine work including, but not limited to, docks, piers, wharves, quays, jetties, cribs, causeways, breakwaters, lighthouses and permanent buoys, etc. (mixing and placing of concrete excepted).

The driving and pulling of all wood, steel and concrete foundation piles and sheet piling.

The heading, pointing, splicing, cutting and welding of all piles.

The placing of all wales, bolts, studs, lagging, rods and washers including the cutting, drilling, boring or breaking of all holes or openings thereof.

The removal of all materials and/or obstructions of any nature (rip-rap included) that retard or interfere with the driving of piles or with the placing of wales, bolts and rods.



**STATE OF MICHIGAN**  
***Informational Sheet: Prevailing Wages on State Projects***

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**CARPENTER CRAFT JURISDICTION**

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This is to be subject to the discretion of the contractor who may choose to use blasting specialists or other demolition specialists.

The handling on the job of all materials used in the work.

The manning of all floating equipment (towing equipment excepted) engaged in the work enumerated, including deck engines, except machinery manned by Operating Engineers.

The placing of all rip-rap, fill stone, bedding stone, cover stone and concrete blocks in connection with marine construction. Work normally performed by Employers, such as soil tests, shoring, underpinning of buildings, cribbing, driving of sheet piling, marine divers, tenders, underwater construction workers and similar operations shall continue to be included in the jurisdiction of this Agreement.

All burning, cutting, welding and fabrication of pipe, H-beams, sheet pile (metal or wood), done on the job site or in the yard of the Employer shall be done by pile drivers. The driving of bearing piles, sheet piling with heavy equipment, caissons, pile caps, auger drilling and boring, the setting up for load testing for any type of piling, all layout and spotting for piling, caisson and boring work, all earth retention, ditch boarding, installing tiebacks.

**ASBESTOS ABATEMENT CARPENTERS**

(gg) All erection and maintenance of barriers and partitions used in the removing of asbestos or any abatement work. The abatement of any materials previously installed by the carpenter such as transite, ceiling and floor tiles. All operating and maintaining of current equipment used in any abatement work.



**STATE OF MICHIGAN**  
***Informational Sheet: Prevailing Wages on State Projects***

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**ELECTRICIAN – SOUND AND COMMUNICATION / DATA/ VOICE JURISDICTION**

The installation, testing, service and maintenance, of systems which utilize the transmission and/or transference of voice, sound, vision or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, CATV and CCTV, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school intercom and sound, burglar alarms, low voltage fire alarm systems, low voltage master clock systems, distributed antenna systems (DAS), IP data networks, and all surface-mounted (non-power) telecommunications wiremold. Shall additionally include the installation of all raceway systems of unlimited length in telecommunications rooms, entrance facilities, equipment rooms, and similar areas. Energy management systems. Security systems; perimeter, vibration, card access, access control and sonar/infrared monitoring equipment. Communications systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; SCADA (Supervisory Control and Data Acquisition), PCM (Pulse Code Modulation), Digital Data Systems, Broadband and Baseband and Carriers, POS (Point of Sale systems), VSAT Data Systems, RF and Remote Control Systems, Fiber Optic Data Systems and Voice and Data Infrastructure and Backbone.



## STATE OF MICHIGAN

Wage and Hour Division  
PO Box 30476  
Lansing, MI 48909  
517-284-7800

### *Informational Sheet: Prevailing Wages on State Funded Projects*

#### REQUIREMENTS

Effective February 13, 2024

The purpose of establishing prevailing rates is to provide minimum rates of pay that must be paid to workers on construction projects that are financed or financially supported by the state. Prevailing rates compiled from the rates contained in collectively bargained agreements which cover the locations of the state projects. While the prevailing wage rates are compiled through surveys of collectively bargained agreements, a collective bargaining agreement is not required for contractors to be on or be awarded state projects. The prevailing rate schedule provides an hourly rate which includes wage and fringe benefit totals for designated construction mechanic classifications. The overtime rates also include wage and fringe benefit totals. Please pay special attention to the overtime and premium pay requirements. The prevailing wage is satisfied when wages plus fringe benefits are equal to or greater than the required rate.

#### **State of Michigan responsibilities:**

- The department establishes the prevailing rate for each classification of construction mechanic requested by the contracting agents prior to contracts being let out for bid on a state project.

#### **DTMB responsibilities**

- If a contract is not awarded or construction does not start within 90 days of the date of the issuance of rates, a re-determination of rates must be requested by the contracting agents.
- Rates for classifications needed but not provided on the Prevailing Rate Schedule, **must** be obtained **prior** to contracts being let out for bid on a state project.

#### **Contractor responsibilities:**

- Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing rates prescribed in a contract.
- Every contractor and subcontractor shall keep an accurate record showing the name and occupation of and the actual wages and benefits paid to each construction mechanic. This record shall be available for reasonable inspection by DTMB or the department.
- Each contractor or subcontractor is liable for the payment of the prevailing rate to its employees.
- The prime contractor is responsible for advising all subcontractors of the requirement to pay the prevailing rate prior to commencement of work.
- A construction mechanic *shall only* be paid the apprentice rate if registered with the United States Department of Labor, Bureau of Apprenticeship and Training and the rate is included in the contract.

#### **Enforcement:**

A person who has information of an alleged prevailing wage violation on a prevailing wage project may file a complaint with the State of Michigan. The department will investigate and attempt to resolve the complaint informally. During the course of an investigation, if the requested records and posting certification are not made available in compliance with contractual requirements, the Contracting Agent may consider the Contractor to be in material breach of the contract and may terminate the contract for cause at the sole discretion. There are also civil penalties for failure to be in compliance with Act 10. View the entire text of Act 10 of 2023 at [michigan.gov/wagehour](http://michigan.gov/wagehour).





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

GRETCHEN WHITMER  
GOVERNOR

SUSAN CORBIN  
DIRECTOR

## Prevailing Wage Rates for State Funded Projects Official Rate Schedule

<b>ORS#:</b>	ORS-001516
<b>Date Issued:</b>	12/17/2024
<b>Contract Award By Date:</b>	03/17/2025
<b>Contracting Agency:</b>	DTMB Design & Construction Division (CA-0007)
<b>Contracting Agency Representative:</b>	Don Klein (KleinD4@michigan.gov)
<b>Project Number:</b>	171/22311.SDW
<b>Project Name:</b>	General Services Building
<b>Project Description:</b>	Switchgear Replacement

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### **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

### Eaton

Classification Name	Category	Last Updated
<b>Boilermaker</b>	<b>Boilermaker</b>	<b>05/10/2024</b>

**Classification Description:** Boilermaker

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$72.47	\$107.55	\$142.63
Apprentice: 1st Period	\$53.53	\$79.15	\$104.75
Apprentice: 2nd Period	\$55.14	\$81.56	\$107.97
Apprentice: 3rd Period	\$56.73	\$83.94	\$111.15
Apprentice: 4th Period	\$58.31	\$86.31	\$114.31
Apprentice: 5th Period	\$59.85	\$88.62	\$117.39
Apprentice: 6th Period	\$63.03	\$93.39	\$123.75
Apprentice: 7th Period	\$66.17	\$98.10	\$130.03
Apprentice: 8th Period	\$69.32	\$102.83	\$136.33

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$90.82
10th hour	\$90.82
Beyond 10 hours	\$90.82
<b>Saturday</b>	
First 8 hours	\$90.82
9th hour	\$90.82
10th hour	\$90.82
Beyond 10 hours	\$90.82
<b>Sunday/Holiday</b>	
	\$109.17

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Bricklayers, Stone Mason, Pointer, Cleaner &amp; Caulker - BAC 2 - Lansing</b>	<b>Bricklayer</b>	<b>09/24/2024</b>

**Classification Description:** Bricklayers, Stone Mason, Pointer, Cleaner & Caulker

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$59.46	\$75.04	\$90.62
Apprentice: Bricklayer Apprentice 5th Level	\$52.80	\$66.05	\$79.30
Apprentice: Bricklayer Apprentice Level 6	\$54.61	\$68.77	\$82.92
Apprentice: Bricklayers Apprentice 1st Level	\$45.58	\$55.22	\$64.86
Apprentice: Bricklayers Apprentice 2nd Level	\$47.39	\$57.94	\$68.48
Apprentice: Bricklayers Apprentice 3rd level	\$49.19	\$60.64	\$72.08
Apprentice: Bricklayers Apprentice 4th level	\$51.00	\$63.35	\$75.70
Apprentice: Bricklayers Apprentice 7th & 8th Levels	\$56.41	\$71.47	\$86.52

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$59.46
10th hour	\$59.46
Beyond 10 hours	\$59.46
<b>Saturday</b>	
First 8 hours	\$59.46
9th hour	\$59.46
10th hour	\$59.46
Beyond 10 hours	\$59.46
<b>Sunday/Holiday</b>	
	\$90.62

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Between Nov. 1 and Apr 30, if inclement weather, or other conditions beyond the Employer's control, Saturdays may be worked as make-up days. Make-up time shall be paid at the straight time rate until forty hrs are worked unless the standard workweek included a holiday, then 32 hrs straight time

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Carpenter - J</b>	<b>Carpenter</b>	<b>05/10/2024</b>

**Classification Description:** Carpenter 4- 10s allowed Monday-Thursday. Friday make up day for inclement weather. Hours worked on Friday except for inclement weather make up shall be paid at time and one half.

Wage Rates	Straight Time	Time and a Half	Double Time	Overtime Provisions
Total Hourly Wage	\$50.02	\$64.59	\$79.15	<b>Over 8-hour day/40-hour week</b>
Apprentice: 1st Year	\$41.28	\$51.48	\$61.67	9th hour \$64.59
Apprentice: 2nd Year	\$42.74	\$53.67	\$64.59	10th hour \$64.59
Apprentice: 3rd Year	\$45.65	\$58.03	\$70.41	Beyond 10 hours \$64.59
Apprentice: 4th Year	\$48.56	\$62.40	\$76.23	<b>Saturday</b>
				First 8 hours \$64.59
				9th hour \$64.59
				10th hour \$64.59
				Beyond 10 hours \$64.59
				<b>Sunday/Holiday</b> \$79.15

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Saturday

**Additional Jurisdiction Detail:** All Twps EXCEPT Bellevue, Kalamo, Vermontville, and Walton

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Carpenter/Piledriver-1004-Lansing Area</b>	<b>Carpenter</b>	<b>09/17/2024</b>

**Classification Description:** Carpenter/Piledriver

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.10	\$71.11	\$88.11
Apprentice: Apprentice 1st Year	\$43.90	\$55.81	\$67.71
Apprentice: Apprentice 2nd Year	\$45.60	\$58.36	\$71.11
Apprentice: apprentice 3rd Year	\$49.00	\$63.46	\$77.91
Apprentice: Apprentice 4th Year	\$52.40	\$68.56	\$84.71

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$71.11
10th hour	\$71.11
Beyond 10 hours	\$71.11
<b>Saturday</b>	
First 8 hours	\$71.11
9th hour	\$71.11
10th hour	\$71.11
Beyond 10 hours	\$71.11
<b>Sunday/Holiday</b>	
	\$88.11

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

If the job is delayed due to inclement weather, a make-up day on Friday may be scheduled by the Employer for completion of the forty (40) hour week. Make-up work scheduled for Friday shall not be less than eight (8) hours.

**Additional Jurisdiction Detail:** All Twps EXCEPT Bellevue, Kalamo, Vermontville, and Walton

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Journeyman Carpenter</b>	<b>Carpenter</b>	<b>09/16/2024</b>

**Classification Description:** Journeyman

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$50.86	\$66.25	\$81.63
Apprentice: 1st year	\$41.63	\$52.40	\$63.17
Apprentice: 2nd year	\$43.17	\$54.71	\$66.25
Apprentice: 3rd year	\$46.24	\$59.32	\$72.39
Apprentice: 4th year	\$49.32	\$63.94	\$78.55

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$50.86
10th hour	\$50.86
Beyond 10 hours	\$66.25
<b>Saturday</b>	
First 8 hours	\$66.25
9th hour	\$66.25
10th hour	\$66.25
Beyond 10 hours	\$66.25
<b>Sunday/Holiday</b>	
	\$81.63

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - Yes

Saturday

**Additional Jurisdiction Detail:** the townships of Bellevue, Kalamo, Vermontvile & Walton only

**Base Rate Comment:** Foreman wage with 3-7 employees = \$2.50 above Base Rate

Foreman with 8 + employees = \$3.50 above base rate

General Foreman = \$4.00 above base rate

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Journeyman Resilient Floorlayer</b>	<b>Carpenter</b>	<b>09/16/2024</b>

**Classification Description:** Journeyman - Resilient Floorlayer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.55	\$71.85	\$89.14
Apprentice: 1st year	\$44.32	\$56.50	\$68.68
Apprentice: 2nd year	\$46.03	\$59.07	\$72.10
Apprentice: 3rd year	\$49.44	\$64.18	\$78.92
Apprentice: 4th year	\$52.85	\$69.30	\$85.74

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$54.55
10th hour	\$54.55
Beyond 10 hours	\$71.84

#### Saturday

First 8 hours	\$71.84
9th hour	\$71.84
10th hour	\$71.84
Beyond 10 hours	\$71.84

<b>Sunday/Holiday</b>	<b>\$89.14</b>
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**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

**Additional Jurisdiction Detail:** the townships of Bellevue, Kalamo, Vermontvile & Walton only

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Resilient floorlayer-1004-Lansing Area</b>	<b>Carpenter</b>	<b>09/17/2024</b>

**Classification Description:** Resilient floorlayer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$54.55	\$71.85	\$89.14
Apprentice: Apprentice 1st Year	\$44.32	\$56.50	\$68.68
Apprentice: Apprentice 2nd Year	\$46.03	\$59.07	\$72.10
Apprentice: Apprentice 3rd Year	\$49.44	\$64.18	\$78.92
Apprentice: Apprentice 4th Year	\$52.85	\$69.30	\$85.74

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$71.84
10th hour	\$71.84
Beyond 10 hours	\$71.84

#### Saturday

First 8 hours	\$71.84
9th hour	\$71.84
10th hour	\$71.84
Beyond 10 hours	\$71.84

<b>Sunday/Holiday</b>	<b>\$89.14</b>
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**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

If the job is delayed due to inclement weather, a make-up day on Friday may be scheduled by the Employer for completion of the forty (40) hour week. Make-up work scheduled for Friday shall not be less than eight (8) hours.

**Additional Jurisdiction Detail:** All Twps EXCEPT Bellevue, Kalamo, Vermontville, and Walton

**Overtime Rate Comment:** Time and one-half (1 1/2) shall be paid for all hours worked over ten (10) hours per day or over forty (40) hours per week in a five (5) day, eight (8) hours work week.



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Communication Technician</b>	<b>Communication Technician</b>	<b>05/13/2024</b>

**Classification Description:**

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

#### Overtime Provisions

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

### Eaton

Classification Name	Category	Last Updated
<b>Drywall Taper &amp; Finisher</b>	<b>Drywall</b>	<b>05/10/2024</b>

**Classification Description:** Drywall Taper and Finisher

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$44.64	\$58.17	\$71.75
Apprentice: 1st level	\$31.06	\$37.80	\$44.59
Apprentice: 2nd level	\$36.49	\$45.95	\$55.45
Apprentice: 3rd level	\$41.92	\$54.09	\$66.31

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$58.22
10th hour	\$58.22
Beyond 10 hours	\$58.22
<b>Saturday</b>	
First 8 hours	\$58.22
9th hour	\$58.22
10th hour	\$58.22
Beyond 10 hours	\$58.22
<b>Sunday/Holiday</b>	
	\$71.80

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Electrician - IW</b>	<b>Electrician</b>	<b>05/10/2024</b>

**Classification Description:** Inside Wireman

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$66.98	\$89.65	\$112.32
Apprentice: 1st Period	\$31.68	\$41.89	\$52.09
Apprentice: 2nd period	\$33.95	\$45.28	\$56.62
Apprentice: 3rd Period	\$38.44	\$50.92	\$63.38
Apprentice: 4th Period	\$51.42	\$66.16	\$80.90
Apprentice: 5th Period	\$53.68	\$69.56	\$85.42
Apprentice: 6th Period	\$55.95	\$72.96	\$89.96

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$89.65
10th hour	\$89.65
Beyond 10 hours	\$112.32
<b>Saturday</b>	
First 8 hours	\$89.65
9th hour	\$89.65
10th hour	\$89.65
Beyond 10 hours	\$112.32
<b>Sunday/Holiday</b>	
	\$112.32

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

**Additional Jurisdiction Detail:** Roxand, Oneida, Delta, Chester, Benton, Windsor, Carmel, Eaton, Eaton Rapids and Hamlin townships

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Electrician - IW</b>	<b>Electrician</b>	<b>05/10/2024</b>

**Classification Description:** Journeyman Wireman  
4 tens allowed M-Th

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.44	\$65.72	\$81.99
Apprentice: 0-1,000 Hours	\$21.46	\$28.64	\$35.83
Apprentice: 1,001-2,000 Hours	\$23.05	\$31.03	\$39.01
Apprentice: 2,001-2,750 Hours	\$32.29	\$41.25	\$50.19
Apprentice: 2,751-3,500 Hours	\$33.92	\$43.69	\$53.45
Apprentice: 3,501-4,250 Hours	\$35.54	\$46.11	\$56.69
Apprentice: 4,251-5,000 Hours	\$37.17	\$48.56	\$59.95
Apprentice: 5,001-5,750 Hours	\$38.80	\$51.01	\$63.21
Apprentice: 5,751-6,500 Hours	\$40.43	\$53.45	\$66.47
Apprentice: 6,501-7,250 Hours	\$42.06	\$55.89	\$69.73
Apprentice: 7,251-8,000 Hours	\$43.69	\$58.34	\$72.99

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$64.94
10th hour	\$64.94
Beyond 10 hours	\$64.94
<b>Saturday</b>	
First 8 hours	\$64.94
9th hour	\$64.94
10th hour	\$64.94
Beyond 10 hours	\$64.94
<b>Sunday/Holiday</b>	
	\$80.44

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

**Additional Jurisdiction Detail:** Townships of Sunfield, Vermontville, Kalamo, Bellevue, Walton and Brookfield ONLY.

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Electrician - IW</b>	<b>Electrician</b>	<b>05/10/2024</b>

**Classification Description:** Journeyman Wireman  
4 tens allowed M-Th

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.44	\$65.72	\$81.99
Apprentice: 0-1,000 Hours	\$21.46	\$28.64	\$35.83
Apprentice: 1,001-2,000 Hours	\$23.05	\$31.03	\$39.01
Apprentice: 2,001-2,750 Hours	\$32.29	\$41.25	\$50.19
Apprentice: 2,751-3,500 Hours	\$33.92	\$43.69	\$53.45
Apprentice: 3,501-4,250 Hours	\$35.54	\$46.11	\$56.69
Apprentice: 4,251-5,000 Hours	\$37.17	\$48.56	\$59.95
Apprentice: 5,001-5,750 Hours	\$38.80	\$51.01	\$63.21
Apprentice: 5,751-6,500 Hours	\$40.43	\$53.45	\$66.47
Apprentice: 6,501-7,250 Hours	\$42.06	\$55.89	\$69.73
Apprentice: 7,251-8,000 Hours	\$43.69	\$58.34	\$72.99

### Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$64.94
10th hour	\$64.94
Beyond 10 hours	\$64.94
Saturday	
First 8 hours	\$64.94
9th hour	\$64.94
10th hour	\$64.94
Beyond 10 hours	\$64.94
Sunday/Holiday	
	\$80.44

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

**Additional Jurisdiction Detail:** Townships of Sunfield, Vermontville, Kalamo, Bellevue, Walton, and Brookfield ONLY.

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Electrician - SC</b>	<b>Electrician</b>	<b>05/10/2024</b>

**Classification Description:** Sound and Communication Technician

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$22.66	\$30.76	\$38.86
Apprentice: 1st 6 months	\$10.16	\$14.42	\$18.66
Apprentice: 2nd 6 months	\$10.93	\$15.57	\$20.20
Apprentice: 3rd 6 months	\$11.70	\$16.72	\$21.74
Apprentice: 4th 6 months	\$12.48	\$17.89	\$23.30
Apprentice: 5th 6 months	\$13.25	\$19.05	\$24.84
Apprentice: 6th 6 months	\$14.02	\$20.20	\$26.38

#### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$30.16
10th hour	\$30.16
Beyond 10 hours	\$30.16
<b>Saturday</b>	
First 8 hours	\$30.16
9th hour	\$30.16
10th hour	\$30.16
Beyond 10 hours	\$30.16
<b>Sunday/Holiday</b>	
	\$37.66

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - Yes

**Additional Jurisdiction Detail:** Townships of Sunfield, Vermontville, Kalamo, Bellevue, Walton and Brookfield ONLY.

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Electrician - SC</b>	<b>Electrician</b>	<b>05/10/2024</b>

**Classification Description:** Sound and Communication Technician

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$22.66	\$30.76	\$38.86
Apprentice: 1st 6 months	\$10.16	\$14.42	\$18.66
Apprentice: 2nd 6 months	\$10.93	\$15.57	\$20.20
Apprentice: 3rd 6 months	\$11.70	\$16.72	\$21.74
Apprentice: 4th 6 months	\$12.48	\$17.89	\$23.30
Apprentice: 5th 6 months	\$13.25	\$19.05	\$24.84
Apprentice: 6th 6 months	\$14.02	\$20.20	\$26.38

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$30.16
10th hour	\$30.16
Beyond 10 hours	\$30.16
<b>Saturday</b>	
First 8 hours	\$30.16
9th hour	\$30.16
10th hour	\$30.16
Beyond 10 hours	\$30.16
<b>Sunday/Holiday</b>	
	\$37.66

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - Yes

**Additional Jurisdiction Detail:** Townships of Sunfield, Vermontville, Kalamo, Bellevue, Walton, and Brookfield ONLY.

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Electrician - SD</b>	<b>Electrician</b>	<b>05/10/2024</b>

**Classification Description:** Sound and Communication Journeyman a 4 day schedule of ten hours a day is allowed Monday thru Friday.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$66.56	\$86.06	\$105.56
Apprentice: 1st period	\$26.80	\$35.03	\$43.26
Apprentice: 2nd period	\$28.86	\$38.11	\$47.37
Apprentice: 3rd period	\$32.98	\$43.26	\$53.55
Apprentice: 4th period	\$47.07	\$60.45	\$73.82
Apprentice: 5th period	\$49.13	\$63.53	\$77.94
Apprentice: 6th period	\$51.19	\$66.63	\$82.05

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$86.06
10th hour	\$86.06
Beyond 10 hours	\$105.56

#### Saturday

First 8 hours	\$86.06
9th hour	\$86.06
10th hour	\$86.06
Beyond 10 hours	\$105.56

<b>Sunday/Holiday</b>	<b>\$105.56</b>
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**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

**Additional Jurisdiction Detail:** Roxand, Oneida, Delta, Chester, Benton, Windsor, Carmel, Eaton, Eaton Rapids and Hamlin townships



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**Classification Description:** Elevator Constructor Mechanic

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$96.72	\$83.78	\$152.57
Apprentice: 1st year	\$68.96	\$46.08	\$99.68
Apprentice: 2nd year	\$74.88	\$54.45	\$111.18
Apprentice: 3rd year	\$77.85	\$58.65	\$116.95
Apprentice: 4th year	\$84.65	\$67.02	\$129.33

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$152.57
10th hour	\$152.57
Beyond 10 hours	\$152.57
<b>Saturday</b>	
First 8 hours	\$152.57
9th hour	\$152.57
10th hour	\$152.57
Beyond 10 hours	\$152.57
<b>Sunday/Holiday</b>	
	\$152.57

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**Classification Description:**

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

### Overtime Provisions

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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

**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	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

**Saturday**

First 8 hours	\$90.71
9th hour	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

<b>Sunday/Holiday</b>	<b>\$113.52</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

#### 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	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

##### Saturday

First 8 hours	\$90.71
9th hour	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

<b>Sunday/Holiday</b>	<b>\$113.52</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

**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	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

**Saturday**

First 8 hours	\$90.71
9th hour	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

<b>Sunday/Holiday</b>	<b>\$113.52</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

**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	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

**Saturday**

First 8 hours	\$90.71
9th hour	\$90.71
10th hour	\$90.71
Beyond 10 hours	\$90.71

<b>Sunday/Holiday</b>	<b>\$113.52</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

**Classification Description:**

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$75.47	\$109.62	\$143.74

#### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$109.61
10th hour	\$109.61
Beyond 10 hours	\$109.61
<b>Saturday</b>	
First 8 hours	\$109.61
9th hour	\$109.61
10th hour	\$109.61
Beyond 10 hours	\$109.61
<b>Sunday/Holiday</b>	
	\$143.74

**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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

**Classification Description:**

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$75.47	\$109.61	\$143.74

### Overtime Provisions

**Over 8-hour day/40-hour week**

9th hour	\$101.14
10th hour	\$101.14
Beyond 10 hours	\$101.14

**Saturday**

First 8 hours	\$101.14
9th hour	\$101.14
10th hour	\$101.14
Beyond 10 hours	\$101.14

<b>Sunday/Holiday</b>	<b>\$126.80</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Foreman</b>	<b>Foreman</b>	<b>05/10/2024</b>

**Classification Description:**

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.98	\$111.87	\$146.76

### Overtime Provisions

**Over 8-hour day/40-hour week**

9th hour	\$103.22
10th hour	\$103.22
Beyond 10 hours	\$103.22

**Saturday**

First 8 hours	\$103.22
9th hour	\$103.22
10th hour	\$103.22
Beyond 10 hours	\$103.22

<b>Sunday/Holiday</b>	<b>\$129.45</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Glazier</b>	<b>Glazier</b>	<b>05/10/2024</b>

**Classification Description:** Glazier  
4 tens allowed on consecutive days

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$49.84	\$67.73	\$85.62
Apprentice: 1st level	\$31.62	\$40.40	\$49.18
Apprentice: 2nd level	\$35.12	\$45.66	\$56.18
Apprentice: 3rd Level	\$40.38	\$53.54	\$66.70
Apprentice: 4th level	\$45.66	\$61.46	\$77.26

### Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$66.72
10th hour	\$66.72
Beyond 10 hours	\$66.72
Saturday	
First 8 hours	\$66.72
9th hour	\$66.72
10th hour	\$66.72
Beyond 10 hours	\$66.72
Sunday/Holiday	
	\$83.59

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Heat &amp; Frost Insulator</b>	<b>Heat and Frost Insulator and Asbestos Worker</b>	<b>05/10/2024</b>

**Classification Description:** Heat and Frost Insulators and Asbestos Workers

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$52.00	\$68.89	\$85.77
Apprentice: 1st year	\$26.38	\$33.69	\$40.99
Apprentice: 2nd year	\$30.15	\$38.92	\$47.68
Apprentice: 3rd year	\$33.92	\$44.15	\$54.37
Apprentice: 4th year	\$37.70	\$49.39	\$61.08
Apprentice: 5th year	\$41.48	\$54.63	\$67.78

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$68.89
10th hour	\$68.89
Beyond 10 hours	\$68.89
<b>Saturday</b>	
First 8 hours	\$68.89
9th hour	\$68.89
10th hour	\$68.89
Beyond 10 hours	\$68.89
<b>Sunday/Holiday</b>	
	\$85.77

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday for cancelled work in a 4 10 schedule

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Ironworker - RF</b>	<b>Ironworker</b>	<b>05/10/2024</b>

**Classification Description:** Reinforced Iron Work

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$69.51	\$85.85	\$102.19
Apprentice: Level 1	\$52.63	\$64.23	\$75.83
Apprentice: Level 2	\$54.68	\$66.77	\$78.86
Apprentice: Level 3	\$56.56	\$68.98	\$81.40
Apprentice: Level 4	\$59.41	\$72.65	\$85.88
Apprentice: Level 5	\$62.27	\$76.32	\$90.37
Apprentice: Level 6	\$66.76	\$82.48	\$98.19
Apprentice: Level 7	\$66.76	\$82.48	\$98.19
Apprentice: Level 8	\$66.76	\$82.48	\$98.19

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$85.85
10th hour	\$85.85
Beyond 10 hours	\$102.19
<b>Saturday</b>	
First 8 hours	\$85.85
9th hour	\$85.85
10th hour	\$102.19
Beyond 10 hours	\$102.19
<b>Sunday/Holiday</b>	
	\$102.19

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - Yes

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Ironworker - RIG</b>	<b>Ironworker</b>	<b>05/10/2024</b>

**Classification Description:** Rigging Work

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.08	\$92.93	\$109.78
Apprentice: Level 1	\$51.75	\$62.38	\$73.01
Apprentice: Level 2	\$52.56	\$63.54	\$74.52
Apprentice: Level 3	\$54.83	\$66.33	\$77.83
Apprentice: Level 4	\$57.51	\$69.71	\$81.91
Apprentice: Level 5	\$60.60	\$73.67	\$86.74
Apprentice: Level 6	\$63.27	\$77.04	\$90.80
Apprentice: Level 7	\$66.35	\$80.99	\$95.62
Apprentice: Level 8	\$69.43	\$84.94	\$100.45

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$92.93
10th hour	\$92.93
Beyond 10 hours	\$109.78
<b>Saturday</b>	
First 8 hours	\$92.93
9th hour	\$92.93
10th hour	\$92.93
Beyond 10 hours	\$109.78
<b>Sunday/Holiday</b>	
	\$109.78

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Ironworker - STR</b>	<b>Ironworker</b>	<b>05/10/2024</b>

**Classification Description:** Structural, ornamental, welder and pre-cast If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$76.21	\$102.75	\$129.29
Apprentice: Level 1	\$51.25	\$61.88	\$72.51
Apprentice: Level 2	\$52.56	\$63.54	\$74.52
Apprentice: Level 3	\$54.83	\$66.33	\$77.83
Apprentice: Level 4	\$57.51	\$70.34	\$83.17
Apprentice: Level 5	\$60.60	\$73.67	\$86.74
Apprentice: Level 6	\$63.27	\$77.04	\$90.80
Apprentice: Level 7	\$66.35	\$80.98	\$95.62
Apprentice: Level 8	\$69.43	\$84.94	\$100.45

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$93.64
10th hour	\$93.64
Beyond 10 hours	\$111.06

#### Saturday

First 8 hours	\$93.64
9th hour	\$93.64
10th hour	\$93.64
Beyond 10 hours	\$111.06

<b>Sunday/Holiday</b>	<b>\$111.06</b>
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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

### Eaton

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

**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

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

### Eaton

Classification Name	Category	Last Updated
<b>Journeyman Specialist</b>	<b>Journeyman Specialist</b>	<b>05/13/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$146.76</b>
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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

### Eaton

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

**Classification Description:**

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

#### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$89.19
10th hour	\$89.19
Beyond 10 hours	\$89.19
<b>Saturday</b>	
First 8 hours	\$89.19
9th hour	\$89.19
10th hour	\$89.19
Beyond 10 hours	\$89.19
<b>Sunday/Holiday</b>	
	\$116.52

**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

### Eaton

Classification Name	Category	Last Updated
<b>Asbestos &amp; Lead Abatement Laborer</b>	<b>Laborer</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$80.13</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Ground Burner</b>	<b>Laborer</b>	<b>08/02/2024</b>

**Classification Description:** Ground Burner

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.03	\$60.70	\$76.36

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$60.69
10th hour	\$60.69
Beyond 10 hours	\$60.69

#### Saturday

First 8 hours	\$60.69
9th hour	\$45.03
10th hour	\$45.03
Beyond 10 hours	\$45.03

<b>Sunday/Holiday</b>	<b>\$76.36</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>High Burner</b>	<b>Laborer</b>	<b>08/02/2024</b>

**Classification Description:** High Burner

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$51.83	\$68.65	\$85.46

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$68.65
10th hour	\$68.65
Beyond 10 hours	\$68.65

#### Saturday

First 8 hours	\$68.65
9th hour	\$68.65
10th hour	\$68.65
Beyond 10 hours	\$68.65

<b>Sunday/Holiday</b>	<b>\$85.46</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 1 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Laborer Road Class 1: asphalt shoveler or loader, yard man, fence erector tender, dumper, joint filling, form setting, form stripper, pavement reinforcing, waterproofing, seal coating, bridge painting, sandblasting, pressure grouting, RC equipment

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.39	\$58.38	\$71.36
Apprentice: 0-1,000 hours	\$38.90	\$48.64	\$58.38
Apprentice: 1,001-2,000 hours	\$40.20	\$50.59	\$60.98
Apprentice: 2,001-3,000 hours	\$41.49	\$52.52	\$63.56
Apprentice: 3,001-4,000 hours	\$44.09	\$56.42	\$68.76

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$58.38
10th hour	\$58.38
Beyond 10 hours	\$58.38

#### Saturday

First 8 hours	\$58.38
9th hour	\$58.38
10th hour	\$58.38
Beyond 10 hours	\$58.38

<b>Sunday/Holiday</b>	<b>\$71.36</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 2 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Laborer Road Class 2: mixer operator, air or electric tool operator, spreader, boxman, concreter paddler, power chain saw operator, paving patch truck dumper, tunnel mucker, concrete saw operator, dry pack machine and roto-mill grounds person

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.59	\$58.18	\$71.26
Apprentice: 0-1,000 hours	\$39.05	\$48.36	\$58.18
Apprentice: 1,001-2,000 hours	\$40.36	\$50.33	\$60.80
Apprentice: 2,001-3,000 hours	\$41.66	\$52.28	\$63.40
Apprentice: 3,001-4,000 hours	\$44.28	\$56.21	\$68.64

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$58.68
10th hour	\$58.68
Beyond 10 hours	\$58.68
<b>Saturday</b>	
First 8 hours	\$58.68
9th hour	\$58.68
10th hour	\$58.68
Beyond 10 hours	\$58.68
<b>Sunday/Holiday</b>	
	\$71.76

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 3 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Laborer Road Class 3: tunnel miner, finish tenders, guard rail builder, median barrier installer, earth retention barrier and wall installer, fence erector, bottom man, powder man, wagon drill and air track operator, curb and side rail setter

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$45.43	\$58.64	\$71.84
Apprentice: 0-1,000 hours	\$38.83	\$48.74	\$58.64
Apprentice: 1,001-2,000 hours	\$40.15	\$50.72	\$61.28
Apprentice: 2,001-3,000 hours	\$41.47	\$52.70	\$63.92
Apprentice: 3,001-4,000 hours	\$44.11	\$56.66	\$69.20

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$58.64
10th hour	\$58.64
Beyond 10 hours	\$58.64
<b>Saturday</b>	
First 8 hours	\$58.64
9th hour	\$58.64
10th hour	\$58.64
Beyond 10 hours	\$58.64
<b>Sunday/Holiday</b>	
	\$71.84

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 4 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Laborer Road Class 4: asphalt raker

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$46.18	\$59.56	\$72.94
Apprentice: 0-1,000 hours	\$39.49	\$49.52	\$59.56
Apprentice: 1,001-2,000 hours	\$40.83	\$51.54	\$62.24
Apprentice: 2,001-3,000 hours	\$42.17	\$53.54	\$64.92
Apprentice: 3,001-4,000 hours	\$44.84	\$57.55	\$70.26

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$59.56
10th hour	\$59.56
Beyond 10 hours	\$59.56
<b>Saturday</b>	
First 8 hours	\$59.56
9th hour	\$59.56
10th hour	\$59.56
Beyond 10 hours	\$59.56
<b>Sunday/Holiday</b>	
	\$72.94

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 5 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$46.05	\$59.37	\$72.68
Apprentice: 0-1,000 hours	\$39.39	\$49.38	\$59.36
Apprentice: 1,001-2,000 hours	\$40.72	\$51.37	\$62.02
Apprentice: 2,001-3,000 hours	\$42.06	\$53.38	\$64.70
Apprentice: 3,001-4,000 hours	\$44.72	\$57.37	\$70.02

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$59.37
10th hour	\$59.37
Beyond 10 hours	\$59.37

#### Saturday

First 8 hours	\$59.37
9th hour	\$59.37
10th hour	\$59.37
Beyond 10 hours	\$59.37

<b>Sunday/Holiday</b>	<b>\$72.68</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 6 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

**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	\$46.39	\$59.88	\$73.36
Apprentice: 0-1,000 hours	\$39.65	\$49.76	\$59.88
Apprentice: 1,001-2,000 hours	\$41.00	\$51.79	\$62.58
Apprentice: 2,001-3,000 hours	\$42.34	\$53.80	\$65.26
Apprentice: 3,001-4,000 hours	\$45.04	\$57.85	\$70.66

### Overtime Provisions

#### Over 8-hour day/40-hour week

9th hour	\$59.88
10th hour	\$59.88
Beyond 10 hours	\$59.88

#### Saturday

First 8 hours	\$59.88
9th hour	\$59.88
10th hour	\$59.88
Beyond 10 hours	\$59.88

<b>Sunday/Holiday</b>	<b>\$73.36</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Class 7 - RZ2</b>	<b>Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Laborer Road Class 7: concrete specialist - including finishing and trowling, cast in place or precast by any method

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$48.96	\$63.73	\$78.50
Apprentice: 0-1,000 hours	\$41.58	\$52.66	\$63.74
Apprentice: 1,001-2,000 hours	\$43.05	\$54.86	\$66.68
Apprentice: 2,001-3,000 hours	\$44.53	\$57.08	\$69.64
Apprentice: 3,001-4,000 hours	\$47.48	\$61.51	\$75.54

Overtime Provisions	
<b>Over 8-hour day/40-hour week</b>	
9th hour	\$63.73
10th hour	\$63.73
Beyond 10 hours	\$63.73
<b>Saturday</b>	
First 8 hours	\$63.73
9th hour	\$63.73
10th hour	\$63.73
Beyond 10 hours	\$63.73
<b>Sunday/Holiday</b>	<b>\$78.50</b>

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - L</b>	<b>Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Journey person - 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	\$38.53	\$51.20	\$63.86
Apprentice: 0-1,000 hours	\$32.20	\$41.70	\$51.20
Apprentice: 1,001-2,000 hours	\$33.46	\$43.60	\$53.73
Apprentice: 2,001-3,000 hours	\$34.73	\$45.50	\$56.26
Apprentice: 3,001-4,000 hours	\$37.26	\$49.30	\$61.33

### Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$51.20
10th hour	\$51.20
Beyond 10 hours	\$51.20
Saturday	
First 8 hours	\$51.20
9th hour	\$51.20
10th hour	\$51.20
Beyond 10 hours	\$51.20
Sunday/Holiday	
	\$63.86

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Saturday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Hazardous - Class A - Z6</b>	<b>Laborer - Hazardous</b>	<b>05/10/2024</b>

**Classification Description:** Class A Laborer - 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 feder

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$38.53	\$51.20	\$63.86
Apprentice: 0-1,000 work hours	\$32.20	\$41.70	\$51.20
Apprentice: 1,001-2,000 work hours	\$33.46	\$47.09	\$60.72
Apprentice: 2,001-3,000 work hours	\$34.73	\$45.50	\$56.26
Apprentice: 3,001-4,000 work hours	\$37.26	\$49.29	\$61.32

Overtime Provisions	
<b>Over 8-hour day/40-hour week</b>	
9th hour	\$51.20
10th hour	\$51.20
Beyond 10 hours	\$51.20
<b>Saturday</b>	
First 8 hours	\$51.20
9th hour	\$51.20
10th hour	\$51.20
Beyond 10 hours	\$51.20
<b>Sunday/Holiday</b>	<b>\$63.86</b>

**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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Hazardous - Class B - Z6</b>	<b>Laborer - Hazardous</b>	<b>05/10/2024</b>

**Classification Description:** Class B Laborer - 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	\$39.53	\$52.70	\$65.86
Apprentice: 0-1,000 work hours	\$32.95	\$42.82	\$52.70
Apprentice: 1,001-2,000 work hours	\$34.26	\$44.79	\$55.32
Apprentice: 2,001-3,000 work hours	\$35.58	\$46.77	\$57.96
Apprentice: 3,001-4,000 work hours	\$38.21	\$50.72	\$63.22

Overtime Provisions	
<b>Over 8-hour day/40-hour week</b>	
9th hour	\$52.70
10th hour	\$52.70
Beyond 10 hours	\$52.70
<b>Saturday</b>	
First 8 hours	\$52.70
9th hour	\$52.70
10th hour	\$52.70
Beyond 10 hours	\$52.70
<b>Sunday/Holiday</b>	<b>\$65.86</b>

**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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Landscape - Class B2 - Z2</b>	<b>Laborer - Landscape</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$49.45</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$39.30</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$28.51</b>
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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

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$50.26
10th hour	\$50.26
Beyond 10 hours	\$50.26
<b>Saturday</b>	
First 8 hours	\$50.26
9th hour	\$50.26
10th hour	\$50.26
Beyond 10 hours	\$50.26
<b>Sunday/Holiday</b>	
	\$61.54

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$50.39
10th hour	\$50.39
Beyond 10 hours	\$50.39
<b>Saturday</b>	
First 8 hours	\$50.39
9th hour	\$50.39
10th hour	\$50.39
Beyond 10 hours	\$50.39
<b>Sunday/Holiday</b>	
	\$61.72

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$50.54
10th hour	\$50.54
Beyond 10 hours	\$50.54
<b>Saturday</b>	
First 8 hours	\$50.54
9th hour	\$50.54
10th hour	\$50.54
Beyond 10 hours	\$50.54
<b>Sunday/Holiday</b>	
	\$61.92

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17
<b>Saturday</b>	
First 8 hours	\$51.17
9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17
<b>Sunday/Holiday</b>	
	\$62.76

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17
<b>Saturday</b>	
First 8 hours	\$51.17
9th hour	\$51.17
10th hour	\$51.17
Beyond 10 hours	\$51.17
<b>Sunday/Holiday</b>	
	\$62.76

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

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

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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
Total Hourly Wage	\$32.16	\$40.04	\$47.92
Apprentice: 0-1,000 work hours	\$27.75	\$34.99	\$42.23
Apprentice: 1,001-2,000 work hours	\$28.52	\$36.15	\$43.77
Apprentice: 2,001-3,000 work hours	\$29.29	\$37.30	\$45.31
Apprentice: 3,001-4,000 work hours	\$30.84	\$39.63	\$48.41

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$40.04
10th hour	\$40.04
Beyond 10 hours	\$40.04
<b>Saturday</b>	
First 8 hours	\$40.04
9th hour	\$40.04
10th hour	\$40.04
Beyond 10 hours	\$40.04
<b>Sunday/Holiday</b>	
	\$47.92

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$49.02
10th hour	\$49.02
Beyond 10 hours	\$49.02
<b>Saturday</b>	
First 8 hours	\$49.02
9th hour	\$49.02
10th hour	\$49.02
Beyond 10 hours	\$49.02
<b>Sunday/Holiday</b>	
	\$59.87

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class I - Z3</b>	<b>Laborer -Underground Open Cut, Class I</b>	<b>05/10/2024</b>

**Classification Description:** Construction Laborer

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$36.91	\$47.01	\$57.10
Apprentice: 0-1,000 work hours	\$31.39	\$40.40	\$49.41
Apprentice: 1,001-2,000 work hours	\$32.38	\$41.88	\$51.39
Apprentice: 2,001-3,000 work hours	\$33.38	\$43.38	\$53.39
Apprentice: 3,001-4,000 work hours	\$35.37	\$46.37	\$57.37

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$47.01
10th hour	\$47.01
Beyond 10 hours	\$47.01
<b>Saturday</b>	
First 8 hours	\$47.01
9th hour	\$47.01
10th hour	\$47.01
Beyond 10 hours	\$47.01
<b>Sunday/Holiday</b>	
	\$57.10

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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
Total Hourly Wage	\$38.28	\$50.74	\$63.19
Apprentice: 0-1,000 work hours	\$32.83	\$42.56	\$52.29
Apprentice: 1,001-2,000 work hours	\$33.92	\$44.20	\$54.47
Apprentice: 2,001-3,000 work hours	\$35.01	\$45.83	\$56.65
Apprentice: 3,001-4,000 work hours	\$37.19	\$49.10	\$61.01

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$49.19
10th hour	\$49.19
Beyond 10 hours	\$49.19
<b>Saturday</b>	
First 8 hours	\$49.19
9th hour	\$49.19
10th hour	\$49.19
Beyond 10 hours	\$49.19
<b>Sunday/Holiday</b>	
	\$60.09

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class II - Z3</b>	<b>Laborer -Underground Open Cut, Class II</b>	<b>05/10/2024</b>

**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
Total Hourly Wage	\$37.05	\$47.22	\$57.38
Apprentice: 0-1,000 work hours	\$31.49	\$40.55	\$49.61
Apprentice: 1,001-2,000 work hours	\$32.49	\$42.05	\$51.61
Apprentice: 2,001-3,000 work hours	\$33.50	\$43.56	\$53.63
Apprentice: 3,001-4,000 work hours	\$35.50	\$46.56	\$57.63

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$47.22
10th hour	\$47.22
Beyond 10 hours	\$47.22
<b>Saturday</b>	
First 8 hours	\$47.22
9th hour	\$47.22
10th hour	\$47.22
Beyond 10 hours	\$47.22
<b>Sunday/Holiday</b>	
	\$57.38

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class III - Z3</b>	<b>Laborer -Underground Open Cut, Class III</b>	<b>05/10/2024</b>

**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	\$37.17	\$47.40	\$57.62
Apprentice: 0-1,000 work hours	\$31.58	\$40.68	\$49.79
Apprentice: 1,001-2,000 work hours	\$32.59	\$42.20	\$51.81
Apprentice: 2,001-3,000 work hours	\$33.60	\$43.72	\$53.83
Apprentice: 3,001-4,000 work hours	\$35.61	\$46.73	\$57.85

### Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$47.40
10th hour	\$47.40
Beyond 10 hours	\$47.40
Saturday	
First 8 hours	\$47.40
9th hour	\$47.40
10th hour	\$47.40
Beyond 10 hours	\$47.40
Sunday/Holiday	
	\$57.62

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

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

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class IV - Z3</b>	<b>Laborer -Underground Open Cut, Class IV</b>	<b>05/10/2024</b>

**Classification Description:** Trench or excavating grade man.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$37.22	\$47.47	\$57.72
Apprentice: 0-1,000 work hours	\$31.62	\$40.74	\$49.87
Apprentice: 1,001-2,000 work hours	\$32.63	\$42.26	\$51.89
Apprentice: 2,001-3,000 work hours	\$33.64	\$43.78	\$53.91
Apprentice: 3,001-4,000 work hours	\$35.66	\$46.80	\$57.95

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$47.47
10th hour	\$47.47
Beyond 10 hours	\$47.47
<b>Saturday</b>	
First 8 hours	\$47.47
9th hour	\$47.47
10th hour	\$47.47
Beyond 10 hours	\$47.47
<b>Sunday/Holiday</b>	
	\$57.72

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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	<b>Over 8-hour day/40-hour week</b>
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	<b>Saturday</b>
				First 8 hours \$49.70
				9th hour \$49.70
				10th hour \$49.70
				Beyond 10 hours \$49.70
				<b>Sunday/Holiday</b> \$60.77

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class V - Z3</b>	<b>Laborer -Underground Open Cut, Class V</b>	<b>05/10/2024</b>

**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	\$37.36	\$47.68	\$58.00	<b>Over 8-hour day/40-hour week</b>
Apprentice: 0-1,000 work hours	\$31.73	\$40.91	\$50.09	9th hour \$47.68
Apprentice: 1,001-2,000 work hours	\$32.74	\$42.42	\$52.11	10th hour \$47.68
Apprentice: 2,001-3,000 work hours	\$33.76	\$43.96	\$54.15	Beyond 10 hours \$47.68
Apprentice: 3,001-4,000 work hours	\$35.79	\$47.00	\$58.21	<b>Saturday</b>
				First 8 hours \$47.68
				9th hour \$47.68
				10th hour \$47.68
				Beyond 10 hours \$47.68
				<b>Sunday/Holiday</b> \$58.00

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class VI - Z3</b>	<b>Laborer -Underground Open Cut, Class VI</b>	<b>05/10/2024</b>

**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 & repair of water service pipe & appurtenances

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$34.66	\$43.63	\$52.60
Apprentice: 0-1,000 work hours	\$29.70	\$37.86	\$46.03
Apprentice: 1,001-2,000 work hours	\$30.58	\$39.18	\$47.79
Apprentice: 2,001-3,000 work hours	\$31.46	\$40.50	\$49.55
Apprentice: 3,001-4,000 work hours	\$33.23	\$43.16	\$53.09

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$43.63
10th hour	\$43.63
Beyond 10 hours	\$43.63
<b>Saturday</b>	
First 8 hours	\$43.63
9th hour	\$43.63
10th hour	\$43.63
Beyond 10 hours	\$43.63
<b>Sunday/Holiday</b>	
	\$52.60

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$40.61
10th hour	\$40.61
Beyond 10 hours	\$40.61
<b>Saturday</b>	
First 8 hours	\$40.61
9th hour	\$40.61
10th hour	\$40.61
Beyond 10 hours	\$40.61
<b>Sunday/Holiday</b>	
	\$48.65

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer -Underground Open Cut - Class VII - Z3</b>	<b>Laborer -Underground Open Cut, Class VII</b>	<b>05/10/2024</b>

**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	\$31.81	\$39.36	\$46.90
Apprentice: 0-1,000 work hours	\$27.56	\$34.66	\$41.75
Apprentice: 1,001-2,000 work hours	\$28.30	\$35.76	\$43.23
Apprentice: 2,001-3,000 work hours	\$29.04	\$36.88	\$44.71
Apprentice: 3,001-4,000 work hours	\$30.52	\$39.10	\$47.67

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$39.36
10th hour	\$39.36
Beyond 10 hours	\$39.36
<b>Saturday</b>	
First 8 hours	\$39.36
9th hour	\$39.36
10th hour	\$39.36
Beyond 10 hours	\$39.36
<b>Sunday/Holiday</b>	
	\$46.90

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Landscape - Class A - Z2</b>	<b>Landscape Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Class A: Irrigation Foremen and Construction Foremen.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$32.40	\$42.96	\$53.48

### 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

<b>Sunday/Holiday</b>	<b>\$53.45</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Laborer - Landscape - Class A - Z2</b>	<b>Landscape Laborer</b>	<b>05/10/2024</b>

**Classification Description:** Class A: Irrigation Foremen and Construction Foremen.

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	\$46.26
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

<b>Sunday/Holiday</b>	<b>\$57.89</b>
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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

### Eaton

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

**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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$129.82</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$135.82</b>
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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

### Eaton

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

**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	Overtime Provisions
Total Hourly Wage	\$76.82	\$98.82	\$120.82	<b>Over 8-hour day/40-hour week</b>
				9th hour \$98.82
				10th hour \$98.82
				Beyond 10 hours \$98.82
				<b>Saturday</b>
				First 8 hours \$98.82
				9th hour \$98.82
				10th hour \$98.82
				Beyond 10 hours \$98.82
				<b>Sunday/Holiday</b> \$120.82

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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	Overtime Provisions
Total Hourly Wage	\$72.32	\$92.07	\$111.82	<b>Over 8-hour day/40-hour week</b>
				9th hour \$32.82
				10th hour \$92.07
				Beyond 10 hours \$92.07
				<b>Saturday</b>
				First 8 hours \$92.07
				9th hour \$92.07
				10th hour \$92.07
				Beyond 10 hours \$92.07
				<b>Sunday/Holiday</b> \$111.82

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$41.43	\$54.43	\$67.42

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$54.43
10th hour	\$54.43
Beyond 10 hours	\$67.42
<b>Saturday</b>	
First 8 hours	\$54.43
9th hour	\$54.43
10th hour	\$54.43
Beyond 10 hours	\$67.42
<b>Sunday/Holiday</b>	
	\$67.42

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$58.82	\$73.32	\$87.81

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$73.32
10th hour	\$73.32
Beyond 10 hours	\$87.81
<b>Saturday</b>	
First 8 hours	\$73.32
9th hour	\$73.32
10th hour	\$73.32
Beyond 10 hours	\$87.81
<b>Sunday/Holiday</b>	
	\$87.81

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$64.70	\$81.75	\$98.80

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$81.75
10th hour	\$81.75
Beyond 10 hours	\$98.80
<b>Saturday</b>	
First 8 hours	\$81.75
9th hour	\$81.75
10th hour	\$81.75
Beyond 10 hours	\$98.80
<b>Sunday/Holiday</b>	
	\$98.80

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$69.61	\$88.88	\$108.15

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$88.88
10th hour	\$88.88
Beyond 10 hours	\$108.15
<b>Saturday</b>	
First 8 hours	\$88.88
9th hour	\$88.88
10th hour	\$88.88
Beyond 10 hours	\$108.15
<b>Sunday/Holiday</b>	
	\$108.15

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$63.29	\$79.73	\$96.16

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$79.73
10th hour	\$79.73
Beyond 10 hours	\$96.16
<b>Saturday</b>	
First 8 hours	\$79.73
9th hour	\$79.73
10th hour	\$79.73
Beyond 10 hours	\$96.16
<b>Sunday/Holiday</b>	
	\$96.16

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

### 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

**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.

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$104.99</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$92.41</b>
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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

### Eaton

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

**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 ¾ 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 ¾ 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

<b>Sunday/Holiday</b>	<b>\$91.36</b>
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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

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$55.33
10th hour	\$55.33
Beyond 10 hours	\$55.33
<b>Saturday</b>	
First 8 hours	\$55.33
9th hour	\$55.33
10th hour	\$55.33
Beyond 10 hours	\$55.33
<b>Sunday/Holiday</b>	
	\$68.31

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - 324 A120</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$120.69</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$122.89</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$123.40</b>
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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

### Eaton

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

**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

**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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$71.91</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - AC</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**Classification Description:** Compressor or Welding Machine

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$56.05	\$69.32	\$82.58

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$69.32
10th hour	\$69.32
Beyond 10 hours	\$69.32
<b>Saturday</b>	
First 8 hours	\$69.32
9th hour	\$82.58
10th hour	\$82.58
Beyond 10 hours	\$82.58
<b>Sunday/Holiday</b>	
	\$82.58

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$85.19
10th hour	\$85.19
Beyond 10 hours	\$85.19
<b>Saturday</b>	
First 8 hours	\$85.19
9th hour	\$85.19
10th hour	\$85.19
Beyond 10 hours	\$85.19
<b>Sunday/Holiday</b>	
	\$103.28

**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

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$99.47
10th hour	\$99.47
Beyond 10 hours	\$99.47
<b>Saturday</b>	
First 8 hours	\$99.47
9th hour	\$99.47
10th hour	\$99.47
Beyond 10 hours	\$99.47
<b>Sunday/Holiday</b>	
	\$121.89

**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

### Eaton

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

**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

### Overtime Provisions

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

**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

### Eaton

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

**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

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**Classification Description:** Fireman or Oiler

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$55.02	\$67.84	\$80.65

### Overtime Provisions

#### Over 8-hour day/40-hour

##### week

9th hour	\$67.84
10th hour	\$67.84
Beyond 10 hours	\$67.84

#### Saturday

First 8 hours	\$67.84
9th hour	\$80.65
10th hour	\$80.65
Beyond 10 hours	\$80.65

#### Sunday/Holiday

\$80.65

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$78.78</b>
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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

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$71.40
10th hour	\$71.40
Beyond 10 hours	\$71.40
<b>Saturday</b>	
First 8 hours	\$71.40
9th hour	\$85.29
10th hour	\$85.29
Beyond 10 hours	\$85.29
<b>Sunday/Holiday</b>	
	\$85.29

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$89.92</b>
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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

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$79.91
10th hour	\$79.91
Beyond 10 hours	\$79.91
<b>Saturday</b>	
First 8 hours	\$79.91
9th hour	\$96.54
10th hour	\$96.54
Beyond 10 hours	\$96.54
<b>Sunday/Holiday</b>	
	\$96.54

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - OSA</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**Classification Description:** Crane w/ main Boom & Jib 220' or longer

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$64.38	\$84.07	\$103.75

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$81.50
10th hour	\$81.50
Beyond 10 hours	\$81.50
<b>Saturday</b>	
First 8 hours	\$81.50
9th hour	\$98.61
10th hour	\$98.61
Beyond 10 hours	\$98.61
<b>Sunday/Holiday</b>	
	\$98.61

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - OSA3</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**Classification Description:** Crane w/ main Boom & Jib 300' or longer

Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work unable to be performed due to weather, Monday-Thursday may be scheduled on Friday.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$65.89	\$86.33	\$106.77

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$83.67
10th hour	\$83.67
Beyond 10 hours	\$83.67
<b>Saturday</b>	
First 8 hours	\$83.67
9th hour	\$101.44
10th hour	\$101.44
Beyond 10 hours	\$101.44
<b>Sunday/Holiday</b>	
	\$101.44

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - OSA4</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**Classification Description:** Crane w/ main Boom & Jib 400' or longer

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$78.46	\$101.49	\$124.52

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$101.49
10th hour	\$101.49
Beyond 10 hours	\$101.49
<b>Saturday</b>	
First 8 hours	\$101.49
9th hour	\$101.49
10th hour	\$101.49
Beyond 10 hours	\$101.49
<b>Sunday/Holiday</b>	
	\$124.52

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - OSB</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**Classification Description:** Crane with main boom and jib 140' or longer

Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work unable to be performed due to weather, Monday-Thursday may be scheduled on Friday.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$64.09	\$83.63	\$103.17

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$81.08
10th hour	\$81.08
Beyond 10 hours	\$81.08
<b>Saturday</b>	
First 8 hours	\$81.08
9th hour	\$98.07
10th hour	\$98.07
Beyond 10 hours	\$98.07
<b>Sunday/Holiday</b>	
	\$98.07

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**Classification Description:** Regular Crane Operator, Job Mechanic, Concrete Pump with Boom

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$66.04	\$83.65	\$101.26
Apprentice: 0-999 hours	\$51.13	\$64.18	\$77.22
Apprentice: 1,000-1,999 hours	\$52.99	\$66.96	\$80.94
Apprentice: 2,000-2,999 hours	\$54.86	\$69.77	\$84.68
Apprentice: 3,000-3,999 hours	\$56.72	\$72.56	\$88.40
Apprentice: 4,000-4,999 hours	\$58.59	\$75.36	\$92.14
Apprentice: 5,000-5,999 hours	\$60.44	\$78.15	\$95.84

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$83.65
10th hour	\$83.65
Beyond 10 hours	\$83.65
<b>Saturday</b>	
First 8 hours	\$83.65
9th hour	\$101.26
10th hour	\$101.26
Beyond 10 hours	\$101.26
<b>Sunday/Holiday</b>	
	\$101.26

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer - RE</b>	<b>Operating Engineer</b>	<b>05/10/2024</b>

**Classification Description:** Regular Engineer, Hydro Excavator & Remote Controlled Concrete Breaker

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$65.07	\$82.26	\$99.44
Apprentice: 1,000-1,999 hours	\$55.19	\$70.02	\$84.84
Apprentice: 1-999 hours	\$53.21	\$67.02	\$80.85
Apprentice: 2,000-2,999 hours	\$57.16	\$72.97	\$88.78
Apprentice: 3,000-3,999 hours	\$59.13	\$75.93	\$92.72
Apprentice: 4,000-4,999 hours	\$61.11	\$78.90	\$96.68
Apprentice: 5,000-5,999 hours	\$63.09	\$81.87	\$100.64

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$82.26
10th hour	\$82.26
Beyond 10 hours	\$82.26
<b>Saturday</b>	
First 8 hours	\$82.26
9th hour	\$99.44
10th hour	\$99.44
Beyond 10 hours	\$99.44
<b>Sunday/Holiday</b>	
	\$99.44

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Friday



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$83.17
10th hour	\$83.17
Beyond 10 hours	\$83.17
<b>Saturday</b>	
First 8 hours	\$83.17
9th hour	\$83.17
10th hour	\$83.17
Beyond 10 hours	\$83.17
<b>Sunday/Holiday</b>	
	\$100.65

**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

### Eaton

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

**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

**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

### Eaton

Classification Name	Category	Last Updated
<b>Marine Construction and Dredging Class I</b>	<b>Operating Engineer - Marine Construction</b>	<b>08/14/2024</b>

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

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$84.30	\$110.05	\$135.80

#### Overtime Provisions

##### 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

<b>Sunday/Holiday</b>	<b>\$135.80</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Marine Construction and Dredging Class II A</b>	<b>Operating Engineer - Marine Construction</b>	<b>08/14/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$107.80
10th hour	\$107.80
Beyond 10 hours	\$107.80
<b>Saturday</b>	
First 8 hours	\$107.80
9th hour	\$107.80
10th hour	\$107.80
Beyond 10 hours	\$107.80
<b>Sunday/Holiday</b>	
	\$132.80

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Marine Construction and Dredging Class II B</b>	<b>Operating Engineer - Marine Construction</b>	<b>08/14/2024</b>

**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
Total Hourly Wage	\$85.80	\$112.30	\$138.80

#### Overtime Provisions

##### 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

<b>Sunday/Holiday</b>	<b>\$138.80</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Marine Construction and Dredging Class III</b>	<b>Operating Engineer - Marine Construction</b>	<b>08/14/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$123.80</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Marine Construction and Dredging Class IV</b>	<b>Operating Engineer - Marine Construction</b>	<b>08/14/2024</b>

**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

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$106.37
10th hour	\$106.37
Beyond 10 hours	\$106.37
<b>Saturday</b>	
First 8 hours	\$106.37
9th hour	\$106.37
10th hour	\$106.37
Beyond 10 hours	\$106.37
<b>Sunday/Holiday</b>	
	\$130.88

**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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$126.20</b>
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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

### Eaton

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

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$104.93
10th hour	\$104.93
Beyond 10 hours	\$104.93
<b>Saturday</b>	
First 8 hours	\$104.93
9th hour	\$104.93
10th hour	\$104.93
Beyond 10 hours	\$104.93
<b>Sunday/Holiday</b>	
	\$129.01

**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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$122.05</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$124.76</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$125.27</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$128.07</b>
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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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$123.92</b>
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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

### Eaton

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

**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

### Eaton

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

**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

<b>Sunday/Holiday</b>	<b>\$112.84</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW120</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$116.33</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW120</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$96.54
10th hour	\$96.54
Beyond 10 hours	\$118.07
<b>Saturday</b>	
First 8 hours	\$96.54
9th hour	\$96.54
10th hour	\$96.54
Beyond 10 hours	\$118.07
<b>Sunday/Holiday</b>	
	\$118.07

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW140</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$96.80
10th hour	\$96.80
Beyond 10 hours	\$118.41
<b>Saturday</b>	
First 8 hours	\$96.80
9th hour	\$96.80
10th hour	\$96.80
Beyond 10 hours	\$118.41
<b>Sunday/Holiday</b>	
	\$118.41

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW140</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$120.28
<b>Saturday</b>	
First 8 hours	\$98.24
9th hour	\$98.24
10th hour	\$98.24
Beyond 10 hours	\$120.28
<b>Sunday/Holiday</b>	
	\$120.28

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW220</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$98.62
10th hour	\$98.62
Beyond 10 hours	\$120.78
<b>Saturday</b>	
First 8 hours	\$98.62
9th hour	\$98.62
10th hour	\$98.62
Beyond 10 hours	\$120.78
<b>Sunday/Holiday</b>	
	\$120.78

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW220</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$95.11
10th hour	\$95.11
Beyond 10 hours	\$116.20
<b>Saturday</b>	
First 8 hours	\$95.11
9th hour	\$95.11
10th hour	\$95.11
Beyond 10 hours	\$116.20
<b>Sunday/Holiday</b>	
	\$116.20

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW300</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW300</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$100.78
10th hour	\$100.78
Beyond 10 hours	\$123.59
<b>Saturday</b>	
First 8 hours	\$100.78
9th hour	\$100.78
10th hour	\$100.78
Beyond 10 hours	\$123.59
<b>Sunday/Holiday</b>	
	\$123.59

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW400</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$101.49
10th hour	\$101.49
Beyond 10 hours	\$124.52
<b>Saturday</b>	
First 8 hours	\$101.49
9th hour	\$101.49
10th hour	\$101.49
Beyond 10 hours	\$124.52
<b>Sunday/Holiday</b>	
	\$124.52

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SW400</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$102.93
10th hour	\$102.93
Beyond 10 hours	\$126.39
<b>Saturday</b>	
First 8 hours	\$102.93
9th hour	\$102.93
10th hour	\$102.93
Beyond 10 hours	\$126.39
<b>Sunday/Holiday</b>	
	\$126.39

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWCO</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**Classification Description:** Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$73.65	\$94.59	\$115.53
Apprentice: 0-999 hours	\$59.16	\$76.02	\$92.88
Apprentice: 1,000-1,999 hours	\$61.56	\$79.63	\$97.68
Apprentice: 2,000-2,999 hours	\$63.96	\$83.22	\$102.48
Apprentice: 3,000-3,999 hours	\$66.38	\$84.18	\$101.98
Apprentice: 4,000-4,999 hours	\$68.78	\$90.46	\$112.12
Apprentice: 5,000 hours	\$71.20	\$91.09	\$110.99

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$94.59
10th hour	\$94.59
Beyond 10 hours	\$115.53
<b>Saturday</b>	
First 8 hours	\$94.59
9th hour	\$94.59
10th hour	\$94.59
Beyond 10 hours	\$115.53
<b>Sunday/Holiday</b>	
	\$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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWCO-Operating Engineer Steel Work</b>		<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$96.03
10th hour	\$96.03
Beyond 10 hours	\$117.40
<b>Saturday</b>	
First 8 hours	\$96.03
9th hour	\$96.03
10th hour	\$96.03
Beyond 10 hours	\$117.40
<b>Sunday/Holiday</b>	
	\$117.40

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWCW</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$47.85
10th hour	\$47.85
Beyond 10 hours	\$58.67
<b>Saturday</b>	
First 8 hours	\$47.85
9th hour	\$47.85
10th hour	\$47.85
Beyond 10 hours	\$58.67
<b>Sunday/Holiday</b>	
	\$58.67

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWHO</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$93.67
10th hour	\$93.67
Beyond 10 hours	\$114.33
<b>Saturday</b>	
First 8 hours	\$93.67
9th hour	\$93.67
10th hour	\$93.67
Beyond 10 hours	\$114.33
<b>Sunday/Holiday</b>	
	\$114.33

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWO</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**Classification Description:** Oiler

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$53.42	\$67.61	\$81.80

#### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$65.74
10th hour	\$65.74
Beyond 10 hours	\$78.06
<b>Saturday</b>	
First 8 hours	\$65.74
9th hour	\$65.74
10th hour	\$65.74
Beyond 10 hours	\$78.06
<b>Sunday/Holiday</b>	
	\$78.06

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWTD50</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$96.16
10th hour	\$96.16
Beyond 10 hours	\$117.57
<b>Saturday</b>	
First 8 hours	\$96.16
9th hour	\$96.16
10th hour	\$96.16
Beyond 10 hours	\$117.57
<b>Sunday/Holiday</b>	
	\$117.57

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Steel Work - SWTD50 O</b>	<b>Operating Engineer Steel Work</b>	<b>05/10/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$97.69
10th hour	\$97.69
Beyond 10 hours	\$119.54
<b>Saturday</b>	
First 8 hours	\$97.69
9th hour	\$97.69
10th hour	\$97.69
Beyond 10 hours	\$119.54
<b>Sunday/Holiday</b>	
	\$119.54

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Underground-324- Class I</b>	<b>Operating Engineer Underground</b>	<b>10/31/2024</b>

**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

**Overtime Provisions**

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$87.00
10th hour	\$87.00
Beyond 10 hours	\$87.00
<b>Saturday</b>	
First 8 hours	\$87.00
9th hour	\$87.00
10th hour	\$87.00
Beyond 10 hours	\$87.00
<b>Sunday/Holiday</b>	
	\$105.89

**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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Underground-324- Class II</b>	<b>Operating Engineer Underground</b>	<b>10/31/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$97.65</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Underground-324- Class III</b>	<b>Operating Engineer Underground</b>	<b>10/31/2024</b>

**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 - 1/2 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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$79.78
10th hour	\$79.78
Beyond 10 hours	\$79.78
<b>Saturday</b>	
First 8 hours	\$79.78
9th hour	\$79.78
10th hour	\$79.78
Beyond 10 hours	\$79.78
<b>Sunday/Holiday</b>	<b>\$96.29</b>

# 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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Underground-324- Class IV</b>	<b>Operating Engineer Underground</b>	<b>10/31/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$95.22</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Operating Engineer Underground-324- Class V</b>	<b>Operating Engineer Underground</b>	<b>10/31/2024</b>

**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

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$52.06
10th hour	\$52.06
Beyond 10 hours	\$52.06
<b>Saturday</b>	
First 8 hours	\$52.06
9th hour	\$52.06
10th hour	\$52.06
Beyond 10 hours	\$52.06
<b>Sunday/Holiday</b>	
	\$64.17

# 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

### Eaton

Classification Name	Category	Last Updated
<b>Painter - BR</b>	<b>Painter</b>	<b>05/10/2024</b>

**Classification Description:** Painter

A 4-10s workweek allowed Monday-Thursday.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$40.09	\$52.29	\$64.49
Apprentice: 1st level	\$27.89	\$33.99	\$40.09
Apprentice: 2nd level	\$30.33	\$37.65	\$44.97
Apprentice: 3rd level	\$33.99	\$43.14	\$52.29
Apprentice: 4th level	\$37.65	\$48.63	\$59.61

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$52.29
10th hour	\$52.29
Beyond 10 hours	\$52.29
<b>Saturday</b>	
First 8 hours	\$52.29
9th hour	\$52.29
10th hour	\$52.29
Beyond 10 hours	\$52.29
<b>Sunday/Holiday</b>	
	\$64.49

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Pipe and Manhole Rehab - 1</b>	<b>Pipe and Manhole Rehab</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$38.20</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Pipe and Manhole Rehab - 2</b>	<b>Pipe and Manhole Rehab</b>	<b>05/10/2024</b>

**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

### Eaton

Classification Name	Category	Last Updated
<b>Pipe and Manhole Rehab - 3</b>	<b>Pipe and Manhole Rehab</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$43.07</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Pipe and Manhole Rehab - 4</b>	<b>Pipe and Manhole Rehab</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$45.70</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Pipe and Manhole Rehab - 5</b>	<b>Pipe and Manhole Rehab</b>	<b>05/10/2024</b>

**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

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Pipe and Manhole Rehab - 6</b>	<b>Pipe and Manhole Rehab</b>	<b>05/10/2024</b>

**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

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Plumber &amp; Pipefitter - RI</b>	<b>Plumber &amp; Pipefitter</b>	<b>05/10/2024</b>

**Classification Description:** Plumber, Pipefitter and HVACTech

Four 10s allowed Monday thru Thursday. Friday not a makeup, considered OT, paid @ time & one-half.

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$63.77	\$95.66	\$127.54
Apprentice: 10th 6 months	\$59.74	\$89.61	\$119.48
Apprentice: 1st 6 months	\$41.61	\$62.42	\$83.22
Apprentice: 2nd 6 months	\$43.62	\$65.43	\$87.24
Apprentice: 3rd 6 months	\$45.64	\$68.46	\$91.28
Apprentice: 4th 6 months	\$47.65	\$71.48	\$95.30
Apprentice: 5th 6 months	\$49.67	\$74.50	\$99.34
Apprentice: 6th 6 months	\$51.68	\$77.52	\$103.36
Apprentice: 7th 6 months	\$53.70	\$80.55	\$107.40
Apprentice: 8th 6 months	\$55.71	\$83.56	\$111.42
Apprentice: 9th 6 months	\$57.73	\$86.60	\$115.46

### Overtime Provisions

Over 8-hour day/40-hour week	
9th hour	\$83.92
10th hour	\$83.92
Beyond 10 hours	\$83.92
Saturday	
First 8 hours	\$83.92
9th hour	\$83.92
10th hour	\$83.92
Beyond 10 hours	\$83.92
Sunday/Holiday	
	\$104.06

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Roofing and Waterproofing Journeyman</b>	<b>Roofer</b>	<b>09/10/2024</b>

**Classification Description:** Journeyman

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$51.36	\$67.44	\$83.51
Apprentice: 1st Class Apprentice	\$35.77	\$44.51	\$53.24
Apprentice: 2nd Class Apprentice	\$37.88	\$47.62	\$57.35
Apprentice: 3rd Class Apprentice	\$39.77	\$50.42	\$61.07
Apprentice: 4th Class Apprentice	\$41.90	\$53.59	\$65.28
Apprentice: 5th Class Apprentice	\$44.05	\$56.76	\$69.47
Apprentice: 6th Class Apprentice	\$46.15	\$59.86	\$73.56

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$67.44
10th hour	\$67.44
Beyond 10 hours	\$67.44
<b>Saturday</b>	
First 8 hours	\$67.44
9th hour	\$67.44
10th hour	\$67.44
Beyond 10 hours	\$67.44
<b>Sunday/Holiday</b>	
	\$83.51

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Saturday is the makeup day and shall be paid at the straight time rate until over forty hours apply

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Sewer Relining Operator - Class I</b>	<b>Sewer Relining</b>	<b>05/10/2024</b>

**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	
<b>Over 8-hour day/40-hour week</b>	
9th hour	\$69.23
10th hour	\$69.23
Beyond 10 hours	\$69.23
<b>Saturday</b>	
First 8 hours	\$69.23
9th hour	\$69.23
10th hour	\$69.23
Beyond 10 hours	\$69.23
<b>Sunday/Holiday</b>	<b>\$85.62</b>

**Four 10-hour days allowed?** - No

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Sewer Relining Operator - Class II</b>	<b>Sewer Relining</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$81.79</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Sheet Metal Worker</b>	<b>Sheet Metal Worker</b>	<b>05/10/2024</b>

**Classification Description:** Sheet Metal Worker  
4 10s allowed as consecutive days, M-Th or T-F

Wage Rates	Straight Time	Time and a Half	Double Time
Total Hourly Wage	\$56.87	\$75.25	\$93.62
Apprentice: First Year	\$30.01	\$39.20	\$48.39
Apprentice: Fourth Year	\$49.52	\$64.22	\$78.92
Apprentice: Second Year	\$36.34	\$47.37	\$58.39
Apprentice: Third Year	\$45.84	\$58.70	\$71.56

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$75.25
10th hour	\$75.25
Beyond 10 hours	\$75.25
<b>Saturday</b>	
First 8 hours	\$75.25
9th hour	\$93.62
10th hour	\$93.62
Beyond 10 hours	\$93.62
<b>Sunday/Holiday</b>	
	\$93.62

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

Make up day allowed for work missed due to inclement weather, make up hours to be paid at regular rate of pay.



# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Sprinkler Fitter</b>	<b>Sprinkler Fitter</b>	<b>05/10/2024</b>

**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

### Overtime Provisions

<b>Over 8-hour day/40-hour week</b>	
9th hour	\$78.45
10th hour	\$78.45
Beyond 10 hours	\$78.45
<b>Saturday</b>	
First 8 hours	\$78.45
9th hour	\$78.45
10th hour	\$78.45
Beyond 10 hours	\$78.45
<b>Sunday/Holiday</b>	
	\$96.56

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Tower Technician</b>	<b>Tower Technician</b>	<b>05/13/2024</b>

**Classification Description:**

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

#### Overtime Provisions

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

### Eaton

Classification Name	Category	Last Updated
<b>Truck Driver - RB1</b>	<b>Truck Driver</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$84.69</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Truck Driver - RB1A</b>	<b>Truck Driver</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$84.99</b>
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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

### Eaton

Classification Name	Category	Last Updated
<b>Truck Driver - RB1B</b>	<b>Truck Driver</b>	<b>05/10/2024</b>

**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
Total Hourly Wage	\$54.20	\$69.70	\$85.19	<b>Over 8-hour day/40-hour week</b>
				9th hour \$69.70
				10th hour \$69.70
				Beyond 10 hours \$69.70
				<b>Saturday</b>
				First 8 hours \$69.70
				9th hour \$69.70
				10th hour \$69.70
				Beyond 10 hours \$69.70
				<b>Sunday/Holiday</b> \$85.19

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - Yes

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Truck Driver - RB2</b>	<b>Truck Driver</b>	<b>05/10/2024</b>

**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

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Truck Driver - RB2A</b>	<b>Truck Driver</b>	<b>05/10/2024</b>

**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

**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No

# Prevailing Wage Rates for State Funded Projects

## Official Rate Schedule

### Eaton

Classification Name	Category	Last Updated
<b>Truck Driver - RB2B</b>	<b>Truck Driver</b>	<b>05/10/2024</b>

**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

<b>Sunday/Holiday</b>	<b>\$56.78</b>
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**Four 10-hour days allowed?** - Yes

**Make Up Day Allowed?** - No



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**APPENDIX V**

**ASBESTOS BUILDING SURVEY FOR  
GENERAL SERVICES BUILDING**



**M**aterials  
**T**esting  
**C**onsultants, INC.

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File No. 071/07115.JNS, Index No. 43000

REPORT OF  
ASBESTOS BUILDING MATERIALS SURVEY  
For

General Services Building  
7461 Crouner Drive  
Dimondale, Michigan 48821

Prepared For:

Mr. Judson N. Sorensen, P.E.

State of Michigan  
Department of Technology, Management and Budget  
Facilities and Business Services Administration  
First Floor, Stevens T. Mason Building  
P.O. Box 30026  
Lansing, MI 48909

MTC Project No. 111493

July 25, 2012

Prepared By:

Materials Testing Consultants, Inc.  
693 Plymouth, NE  
Grand Rapids, Michigan 49505  
Phone: (616) 456-5469  
Fax: (616) 456-5784



**REPORT OF ASBESTOS BUILDING MATERIALS SURVEY**

General Services Building  
7461 Crowner Drive  
Dimondale, Michigan 48821

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REPORT OF ASBESTOS BUILDING MATERIALS SURVEY

General Services Building  
7461 Crowner Drive  
Dimondale, Michigan 48821


SIGNATURE PAGE

**Date(s) of Inspection:** June 4 – June 7, 2012

**Principle Building Inspector:** Christopher J. Kestner, C.I.E.

**Assistant Building Inspector:** Robert J. Crane

Chris Kestner	Asbestos Inspector Course:	TEOC
	Expiration Date:	June 8, 2013
	Certificate No.	BIMPR12060801
	State of Michigan Accreditation No.	A10977
	Asbestos Inspector Expiration Date:	August 8, 2012
	Asbestos Management Planner Expiration Date	October 18, 2012
Rob Crane	Asbestos Inspector Course:	EOCT, Inc.
	Expiration Date:	January 11, 2013
	Certificate No.	2012-007
	State of Michigan Accreditation No.	A42252
	Expiration Date:	February 28, 2013

**Report Prepared by:**  **Date:** July 25, 2012  
Christopher J. Kestner, C.I.E., Sr. Project Environmental Professional

**Reviewed by:**  **Date:** July 25, 2012  
Allan G. Howland, Project Designer

Training Certificates and State of Michigan Accreditations are provided following Appendix A



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## REPORT OF ASBESTOS BUILDING MATERIALS SURVEY

General Services Building  
7461 Crowner Drive  
Dimondale, Michigan 48821

### 1.0 INTRODUCTION

Materials Testing Consultants, Inc. (MTC) was retained by the State of Michigan, Department of Technology, Management and Budget to provide asbestos-related services within the Grand Rapids State Office Building, Traverse City State Office Building, Escanaba State Office Building, Secretary of State Building, General Services Building, Michigan State Police 1<sup>st</sup> District Headquarters Building and the Governor's Residence located in various cities throughout Michigan. These services included inspection, sampling, and analysis of suspected asbestos containing building materials, as well as a report of findings for use in future decisions regarding the building. This report, which follows, provides detailed information concerning building materials within the General Services Building and recommendations with regard to asbestos containing materials within the building.

The adverse health effects associated with asbestos exposure have been extensively studied for many years. Results of these studies and epidemiological investigations have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing one or more diseases. Those diseases typically associated with asbestos fiber inhalation include asbestosis (a scar tissue buildup in the lungs caused by overexposure to asbestos), mesothelioma (a cancer of the lining of the lungs or abdomen which is almost always caused by exposure to asbestos), and lung cancer (a malignant growth in the lung tissue). Exactly why some people develop these diseases and others do not remain a mystery. It is important to recognize that the majority of people who have been inflicted and died as a result of asbestos exposure were asbestos workers. These workers were frequently exposed to high concentrations of asbestos fibers each working day with little or no protection.

The scope of this inspection and survey does not include inspection results concerning the potential presence of other hazardous materials. These hazardous materials may include lead-based paints, PCB containing oils in fluorescent light ballasts and other transformers, and mercury vapor in fluorescent lights. The potential presence of these materials in the facility represents areas of concern for building occupants and construction workers.

Lead has been targeted as a major health concern especially for young children in their developmental years. Permissible exposure levels for people have recently been lowered and removal of lead-based paints has been regulated much like asbestos in many areas of the country. Prior to demolition or renovation activities, MTC recommends that sampling and laboratory analyses of all painted surfaces be conducted.

Concerning light ballasts and transformers, MTC recommends that prior to any electrical upgrade which would affect light ballasts or transformers, a detailed inspection be completed to determine their likelihood of containing PCB's. If disposal of PCB containing light ballasts or transformers is necessary, the Owner may dispose of intact ballasts in limited quantities as regular sanitary waste. If during electrical upgrades, building renovations or demolitions, the Owner or selected contractor is required to remove transformers or large quantities of light ballasts, it is recommended that these transformers or ballasts be maintained by the Owner for future use or that the Owner contract with a licensed facility for disposal. If ballasts or transformers are leaking, they must be considered as hazardous waste and disposed of at a licensed facility.

The bulbs associated with fluorescent lighting often contain hazardous mercury vapor. If disposal of fluorescent bulbs is necessary, MTC recommends that caution should be maintained to prevent breakage and that, for large quantities of bulbs, a licensed facility is contracted for proper disposal.

## **2.0 FACILITY DESCRIPTION**

The General Services Building is located at 7461 Crouner Drive in Dimondale, Michigan. The building is currently used as office space for the State of Michigan, housing Print and Graphic Services, Mailing Service and Michigan State Police storage and supplies and general warehouse space. The building was built in 1976 and has an approximate 147,000 sq. ft. size building footprint. The building is a one story building with three mezzanine areas that serve as mechanical rooms. The interior office space construction typically consists of carpeted or tiled floors; drywall and fiberglass filled metal walls and suspended drop ceilings. The interior warehouse space consists of mostly concrete floors with drywall or metal walls and a metal deck ceiling.

## **SECTION 3.0 - INSPECTION**

## **SECTION 3.1**

### **INSPECTION PROCEDURES**

Inspection of the General Services Building initially began with a meeting with Mr. Judson N. Sorensen, P.E., the Project Manager, and Mr. Scott Davis, the Facility Supervisor, to obtain information on building access, history and description. Once on site, the Materials Testing Consultants, Inc. inspectors assigned Function Area numbers to all individual rooms and continuous spaces and inspected each function area for quantity, location and condition of all suspect friable and non-friable asbestos containing building materials. See Section 3.2 of this report for maps of Function Area locations and numbering sequences representing the General Services Building.

Individual types of building materials encountered during the inspection were assigned homogenous material numbers. Materials Testing Consultants, Inc. considered materials to be homogeneous only if they were similar in appearance, was located within the same building, and represented construction and/or renovation events which were completed over a set time or duration and which were likely completed by the same contractor.

Each suspect material was treated as a homogeneous material with the exception of floor tile and mastic which, when encountered, were combined as a single homogeneous material. Fire doors were assumed to be asbestos containing and were treated as a separate homogeneous material within the final report. For a listing of homogeneous materials, see the "Homogeneous Material Report", provided within Section 3.3, for the General Services Building. Photos of each Homogeneous Material are provided in Appendix B. The Homogeneous Material Report also provides a quick summary of the presence and type of asbestos for each homogeneous material and total quantities of each material. This information can be of value when assessing asbestos abatement costs associated with renovation and/or demolition activities.

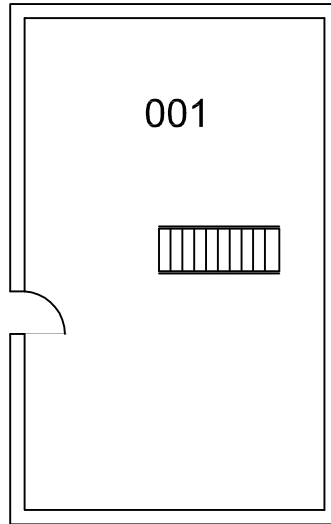
The inspection performed quantified and assessed the condition of all suspect materials within each Function Area of the General Services Building. As each function area was inspected, each suspect asbestos containing material was classified as friable or non-friable, assigned a type designation (surfacing, thermal system insulation or miscellaneous). Finally, quantity of material was determined in square feet, linear feet, cubic feet or unit. If needed, the inspector also provided written remarks describing damage or potential hazards, which may exist.

Inspection information has been provided within the report entitled "Building Survey Summary" for the General Services Building. You will find that the Building Survey Summary report will be especially valuable when trying to assess the potential for impacting asbestos containing materials when performing building maintenance activities. This report will provide interested parties with a quick reference of all materials considered to be suspect during the inspection, and when used in conjunction with the summary of analytical results, can indicate the presence of asbestos in each of these suspect materials.

Certain materials such as fiberglass pipe insulation were assumed as non-asbestos and were not sampled. Where appropriate, these materials were inspected to assure that other suspect materials were not being covered.



## **SECTION 3.2 - FUNCTION AREAS**



GENERAL SERVICES BUILDING  
BASEMENT



TITLE: GENERAL SERVICES BUILDING - BASEMENT

PROJECT: VARIOUS STATE OFFICE BUILDINGS

SCALE: NONE

DATE: JULY 6, 2012

PROJECT NO.: 111493

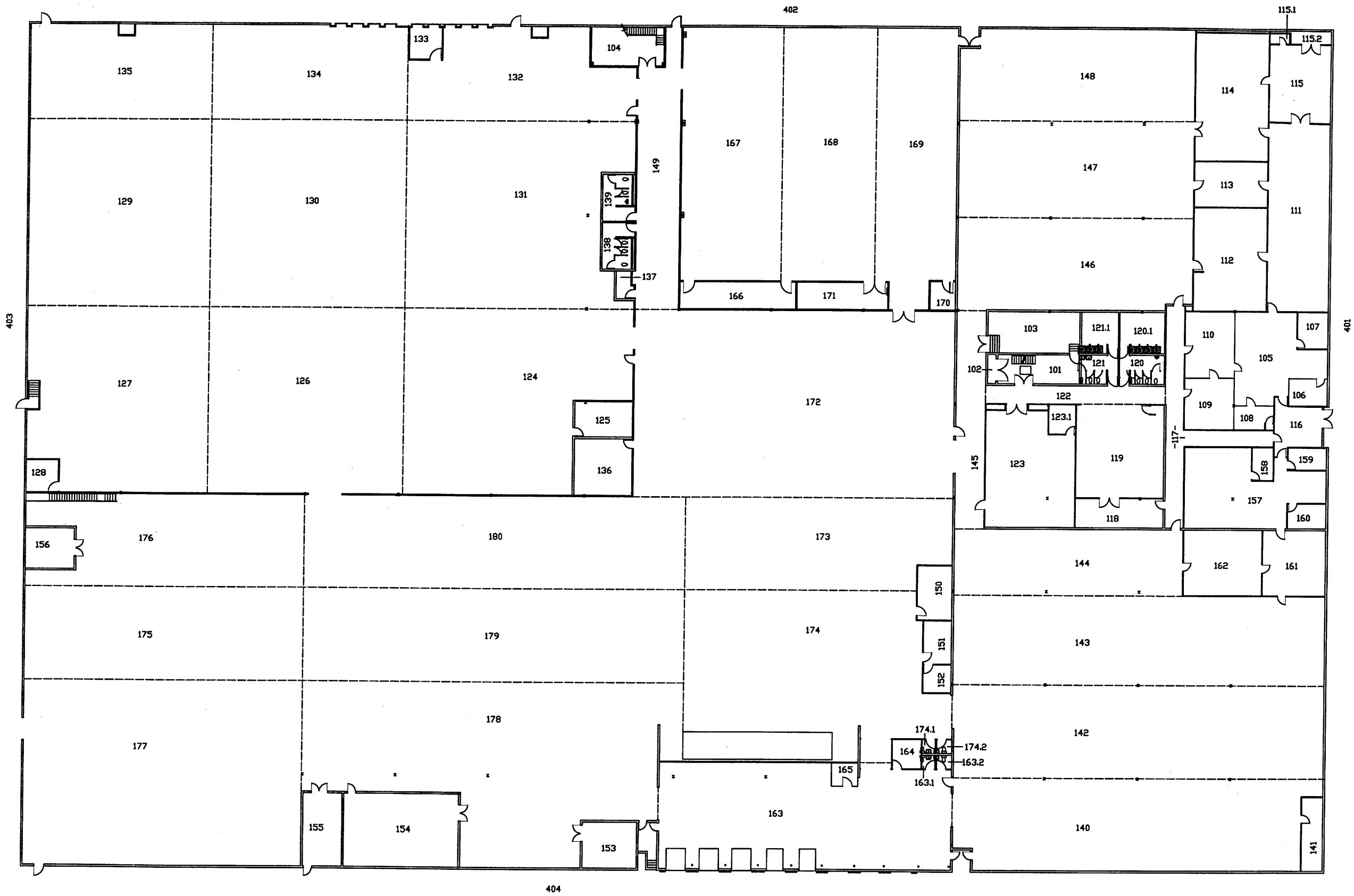
**Materials Testing Consultants, INC.**

FIG. NO.: 1

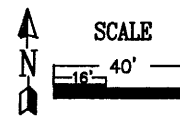
DR. BY: RC

REV. BY: CK

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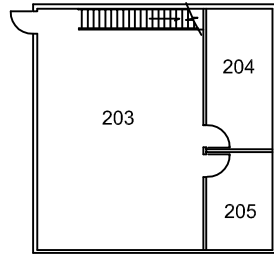


# GENERAL SERVICES BUILDING 1ST FLOOR

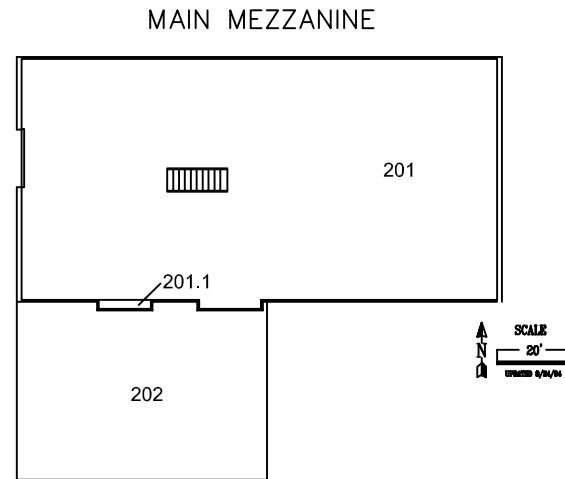


UPDATED 8/24/04

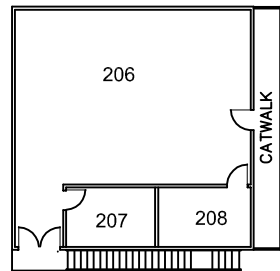
TITLE: GENERAL SERVICES BUILDING - MAIN FLOOR SCALE: NONE FIG. NO.: 2	PROJECT: VARIOUS STATE OFFICE BUILDINGS PROJECT NO.: 111493 REV. BY: CK
DATE: JULY 6, 2012 DR. BY: RC	<b>Materials Testing Consultants, INC.</b> 693 PLYMOUTH N.E., GRAND RAPIDS, MICH. 49505 • PHONE 616-456-5469



CENTER MEZZANINE



MAIN MEZZANINE

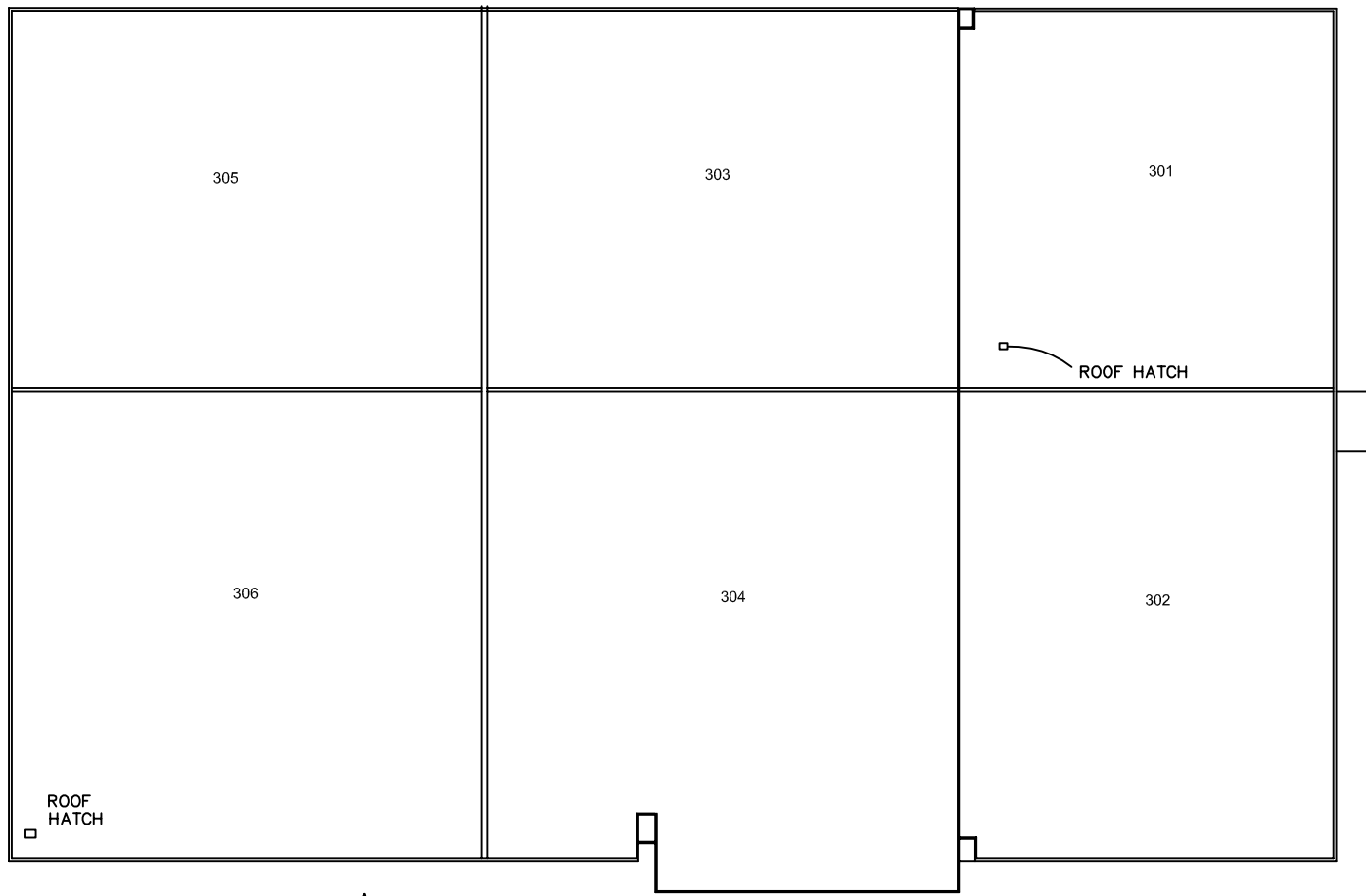


WEST MEZZANINE

GENERAL SERVICES BUILDING  
MEZZANINE AREAS



TITLE: GENERAL SERVICES BUILDING - MEZZANINES		PROJECT: VARIOUS STATE OFFICE BUILDINGS	
SCALE: NONE	DATE: JULY 6, 2012	PROJECT NO.: 111493	<b>Materials Testing Consultants, INC.</b> 693 PLYMOUTH N.E., GRAND RAPIDS, MICH. 49505 • PHONE 616-456-5469
FIG. NO.: 3	DR. BY: RC	REV. BY: CK	



GENERAL SERVICES BUILDING  
ROOF PLAN



TITLE: GENERAL SERVICES BUILDING - ROOF		PROJECT: VARIOUS STATE OFFICE BUILDINGS	
SCALE: NONE	DATE: JULY 6, 2012	PROJECT NO.: 111493	<b>Materials Testing Consultants, INC.</b> 693 PLYMOUTH N.E., GRAND RAPIDS, MICH. 49505 • PHONE 616-456-5469
FIG. NO.: 4	DR. BY: RC	REV. BY: CK	

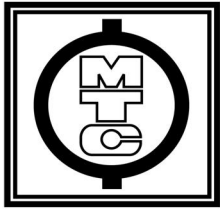
## **SECTION 3.3 - HOMOGENEOUS AREAS REPORT**



## Homogeneous Material Report

<b>Homogeneous Material (HM)</b>	<b>Homogeneous Material Number</b>	<b>Friable/Non-Friable</b>	<b>Asbestos Presence</b>	<b>Classification</b>	<b>Asbestos Type</b>	<b>Percentage</b>	<b>Quantity</b>
Mud Compound Insulation On Fiberglass Lines - Chilled Water	1	F	ND	T	None Detected	---	12 Each
Fire Door	2	NF	A	M	Assumed	---	16 Each
Mud Compound Insulation On Fiberglass Lines - Domestic Water	3	F	ND	T	None Detected	---	267 Each
Vibration Dampening Cloth, Black	4	NF	ND	M	None Detected	---	376 Lin. Ft.
Putty, Red/Brown	5	NF	ND	M	None Detected	---	NQ
Mud Compound Insulation On Fiberglass Lines - Heating System	6	F	ND	T	None Detected	---	520 Each
Duct Caulk, Gray	7	NF	ND	M	None Detected	---	NQ
Drywall and Drywall Joint Compound	8	NF	ND	M	None Detected	---	NQ
Mud Compound Insulation On Fiberglass Lines - Roof Drains	9	F	ND	T	None Detected	---	73 Each
Putty, Red	10	NF	ND	M	None Detected	---	NQ

<b>Legend:</b>	<b>Friable/Non-Friable</b>	<b>Asbestos Presence</b>	<b>Classification</b>	<b>Quantity</b>
	F = Friable NF = Non-Friable	K = known to contain asbestos A = assumed to contain asbestos ND = asbestos not detected by laboratory analysis NA = material identified as non-asbestos by inspector BRL = below regulated limit	T = thermal system insulation S = surfacing material M = miscellaneous material	NQ = Not Quantified



## Homogeneous Material Report

Homogeneous Material (HM)	Homogeneous Material Number	Friable/ Non-Friable	Asbestos Presence	Classifi- cation	Asbestos Type	Percentage	Quantity
2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	11	F	ND	M	None Detected	---	18,450 Sq. Ft.
2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	12	F	ND	M	None Detected	---	1,460 Sq. Ft.
4" Vinyl Cove Base, Tan	13	NF	ND	M	None Detected	---	1,113 Lin. Ft.
Window Caulk, Off-White	14	NF	ND	M	None Detected	---	1,283 Lin. Ft.
4" Vinyl Cove Base, Gray	15	NF	ND	M	None Detected	---	39 Lin. Ft.
6" Vinyl Cove Base, Tan	16	NF	ND	M	None Detected	---	824 Lin. Ft.
12" x 12" Floor Tile, Off-White with Gray Flecks	17	NF	ND	M	None Detected	---	1,113 Sq. Ft.
6" Vinyl Cove Base, Dark Brown	18	NF	ND	M	None Detected	---	775 Lin. Ft.
12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	19	NF	K	M	Chrysotile	3% (Tile Only)	3,032 Sq. Ft.
2' x 2' Ceiling Tile, White, Textured, Recessed	20	F	ND	M	None Detected	---	328 Sq. Ft.

<b>Legend:</b>	<u><b>Friable/Non-Friable</b></u> F = Friable NF = Non-Friable	<u><b>Asbestos Presence</b></u> K = known to contain asbestos A = assumed to contain asbestos ND = asbestos not detected by laboratory analysis NA = material identified as non-asbestos by inspector BRL = below regulated limit	<u><b>Classification</b></u> T = thermal system insulation S = surfacing material M = miscellaneous material	<u><b>Quantity</b></u> NQ = Not Quantified
----------------	--	--	---	---





## Homogeneous Material Report

Homogeneous Material (HM)	Homogeneous Material Number	Friable/Non-Friable	Asbestos Presence	Classification	Asbestos Type	Percentage	Quantity
6" Vinyl Cove Base, Dark Green	21	NF	ND	M	None Detected	---	481 Lin. Ft.
12" x 12" Floor Tile, White with Gray and Dark Gray Flecks	22	NF	ND	M	None Detected	---	6 Sq. Ft.
2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	23	F	ND	M	None Detected	---	743 Sq. Ft.
Under Sink Coating, White	24	NF	K	M	Chrysotile	2%	1 Each
6" Vinyl Cove Base, Gray	25	NF	ND	M	None Detected	---	1,673 Lin. Ft.
2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	26	F	ND	M	None Detected	---	37,356 Sq. Ft.
2' x 2' Ceiling Tile, White, Random Pin Holes	27	F	ND	M	None Detected	---	64 Sq. Ft.
2' x 4' Ceiling Tile, White, Random Pin and Pen Holes	28	F	ND	M	None Detected	---	193 Sq. Ft.
2' x 4' Ceiling Tile, White, Patterned Pen Holes	29	F	ND	M	None Detected	---	16 Sq. Ft.
12" x 12" Floor Tile, Gray with Dark Gray and White Flecks	30	NF	ND	M	None Detected	---	98 Sq. Ft.

Legend:	<u>Friable/Non-Friable</u>	<u>Asbestos Presence</u>	<u>Classification</u>	<u>Quantity</u>
	F = Friable NF = Non-Friable	K = known to contain asbestos A = assumed to contain asbestos ND = asbestos not detected by laboratory analysis NA = material identified as non-asbestos by inspector BRL = below regulated limit	T = thermal system insulation S = surfacing material M = miscellaneous material	NQ = Not Quantified



## Homogeneous Material Report

<b>Homogeneous Material (HM)</b>	<b>Homogeneous Material Number</b>	<b>Friable/ Non-Friable</b>	<b>Asbestos Presence</b>	<b>Classification</b>	<b>Asbestos Type</b>	<b>Percentage</b>	<b>Quantity</b>
6" Vinyl Cove Base, Black	31	NF	ND	M	None Detected	---	21 Lin. Ft.
2' x 4' Ceiling Tile, White, Random Pin and Knife Holes	32	F	ND	M	None Detected	---	1,243 Sq. Ft.
4" Vinyl Cove Base, Brown	33	NF	ND	M	None Detected	---	64 Lin. Ft.
Exterior Roof Caulk, Black and White Mix	34	NF	ND	M	None Detected	---	71 Lin. Ft.
Exterior Window Caulk, Gray	35	NF	ND	M	None Detected	---	1,218 Lin. Ft.
Safe Door	36	NF	A	M	Assumed	---	1 Each

**Legend:** Friable/Non-Friable  
F = Friable  
NF = Non-Friable

Asbestos Presence  
K = known to contain asbestos  
A = assumed to contain asbestos  
ND = asbestos not detected by laboratory analysis  
NA = material identified as non-asbestos by inspector  
BRL = below regulated limit

Classification  
T = thermal system insulation  
S = surfacing material  
M = miscellaneous material

Quantity  
NQ = Not Quantified

## **SECTION 3.4 - INSPECTION REPORT**



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**Job No.:** 111493  
**Building No.:** 1  
**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crowner Drive  
Dimondale, Michigan  
**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
001	6/4/2012	1	Mud Compound Insulation On Fiberglass Lines - Chilled Water	None Detected	---	F	T	G	ND	8	Each	Lower Mechanical Room-Concrete Floor, Concrete Wall, Concrete Ceiling	
101	6/4/2012	2	Fire Door	Assumed	---	NF	M	G	ND	5	Each	Mechanical Room-Concrete Floor, Block Wall, Concrete Ceiling	
101	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	10	Each		
102	6/4/2012	0	No Asbestos Detected	--	---	--	--	---	---	--	--	Telecom Room-Concrete Floor, Block Wall, Concrete Ceiling	
103	6/4/2012	0	No Asbestos Detected	--	---	--	--	---	---	--	--	Electrical Room-Concrete Floor, Block Wall, Concrete Ceiling	
104	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND	NQ	NQ	Mechanical Room-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck	
105	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND	NQ	NQ	Office Area-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
105	6/4/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	32	Sq. Ft.		
105	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	727	Lin. Ft.		
105	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	100	Lin. Ft.		



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**Job No.:** 111493  
**Building No.:** 1  
**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crouner Drive  
Dimondale, Michigan  
**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
105	6/4/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	23	Lin. Ft.		
105	6/4/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	2	Lin. Ft.		
106	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	169	Sq. Ft.	Office-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
107	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	4	Each		
107	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND	NQ		Office Area-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
107	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	143	Sq. Ft.		
107	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	32	Lin. Ft.		
107	6/4/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	46	Lin. Ft.		
108	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND	NQ		Data Room-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
108	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	65	Sq. Ft.		



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**Job No.:** 111493  
**Building No.:** 1  
**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crowner Drive  
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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
108	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	11	Lin. Ft.		
108	6/4/2012	15	4" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	18	Lin. Ft.		
108	6/4/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	6	Lin. Ft.		
109	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	352	Sq. Ft.	Storage-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck	
109	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	66	Lin. Ft.		
110	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	13	Each	Office Area Cubicles-Concrete Floor Under Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck	
110	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
110	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	414	Sq. Ft.		
110	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	77	Lin. Ft.		
111	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	24	Each	Office Area Cubicles-Concrete Floor Under Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck	



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**Job No.:** 111493  
**Building No.:** 1  
**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crowner Drive  
Dimondale, Michigan  
**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
111	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
111	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		1526	Sq. Ft.	
111	6/4/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND		16	Sq. Ft.	
111	6/4/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND		230	Lin. Ft.	
111	6/4/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND		164	Lin. Ft.	
112	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		16	Each	Office Area Cubicles-Concrete Floor Under Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck (2
112	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
112	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		891	Sq. Ft.	
112	6/4/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND		113	Lin. Ft.	
113	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		Office Area Cubicles-Concrete Floor Under Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck



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**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
113	6/4/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	446	Sq. Ft.		
113	6/4/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	78	Lin. Ft.		
114	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	30	Each	Printing Room-Concrete Floor Under Floor Tile, Partial Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under	
114	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
114	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	1377	Sq. Ft.		
114	6/4/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	46	Lin. Ft.		
114	6/4/2012	17	12" x 12" Floor Tile, Off-White with Gray Flecks	None Detected	---	NF	M	G	ND	1113	Sq. Ft.		
114	6/4/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	104	Lin. Ft.		
114	6/4/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND	4	Sq. Ft.		
115	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	8	Each	Printing Room-Concrete Floor Under Floor Tile, Partial Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under	





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**Job No.:** 111493  
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General Services Building  
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**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
115	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	6	Each		
115	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
115	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	609	Sq. Ft.		
115	6/4/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	24	Sq. Ft.		
115	6/4/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	8	Lin. Ft.		
115	6/4/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	20	Lin. Ft.		
115	6/4/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND	390	Sq. Ft.		
115.1	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	12	Each	Janitors Closet-Concrete Under Floor Tile, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck (2 Assumed In	
115.1	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
115.1	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	48	Sq. Ft.		



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7461 Crowner Drive  
Dimondale, Michigan

**Building:** General Services Building

**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
115.1	6/4/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	20	Lin. Ft.		
115.1	6/4/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND	48	Sq. Ft.		
115.2	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	3	Each	Water Main and Fire Control Room- Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck (1 Assumed In Wall)	
115.2	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	10	Each	2 Assumed in Wal)	
116	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	4	Each		
116	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	3	Each	Entry Way-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck	
116	6/4/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
116	6/4/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	36	Lin. Ft.		
116	6/4/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	64	Lin. Ft.		
116	6/4/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	62	Lin. Ft.		



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**Building:** General Services Building

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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
116	6/4/2012	20	2' x 2' Ceiling Tile, White, Textured, Recessed	None Detected	---	F	M	G	ND		328	Sq. Ft.	
117	4/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		4	Each	Hallway-Concrete Floor Under Floor Tile Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck
117	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		2	Each	
117	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		690	Sq. Ft.	
117	6/4/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND		690	Sq. Ft.	
117	6/4/2012	21	6" Vinyl Cove Base, Dark Green	None Detected	---	NF	M	G	ND		218	Lin. Ft.	
118	6/4/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		347	Sq. Ft.	Conference Room-Concrete Floor Under Floor Tile Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck
118	6/4/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND		346	Sq. Ft.	
118	6/4/2012	21	6" Vinyl Cove Base, Dark Green	None Detected	---	NF	M	G	ND		78	Lin. Ft.	
118	6/4/2012	22	12" x 12" Floor Tile, White with Gray and Dark Gray Flecks	None Detected	---	NF	M	G	ND		1	Sq. Ft.	



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
119	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	16	Each	Break Area-Concrete Floor Under Floor Tile Under Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck,	
119	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
119	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
119	6/5/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	759	Sq. Ft.		
119	6/5/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND	1134	Sq. Ft.		
119	6/5/2012	21	6" Vinyl Cove Base, Dark Green	None Detected	---	NF	M	G	ND	101	Lin. Ft.		
119	6/5/2012	22	12" x 12" Floor Tile, White with Gray and Dark Gray Flecks	None Detected	---	NF	M	G	ND	5	Sq. Ft.		
120	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	10	Each	Men's Bathroom-Ceramic Tile Floor, Ceramic Tile Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck (10 Assumed In Wall)	
120	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	L	SD	12	Each		
120	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		



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Dimondale, Michigan

**Building:** General Services Building

**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
120	6/5/2012	23	2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	204	Sq. Ft.		
120.1	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	4	Each	Men's Locker Room-Ceramic Tile Floor, Ceramic Tile Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck (4 Assumed In Wall)	
120.1	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	8	Each		
120.1	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
120.1	6/6/2012	23	2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	204	Sq. Ft.		
121	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	12	Each	Women's Bathroom-Ceramic Tile Floor, Ceramic Tile Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck (12 Assumed In Wall)	
121	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	L	SD	6	Each		
121	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
121	6/5/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	20	Sq. Ft.	Cut To 2'x2'	
121	6/5/2012	23	2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	123	Sq. Ft.		



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
121.1	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	4	Each	Women's Locker Room-Ceramic Tile Floor, Ceramic Tile Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck (4 Assumed In	
121.1	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
121.1	6/5/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	4	Sq. Ft.		
121.1	6/5/2012	23	2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	200	Sq. Ft.		
122	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	6	Each	Hallway-Concrete Floor Under Floor Tile Under Partial Carpet, Fiberglass Filled Metal Wall, Drywall Wall, Tile Drop Ceiling	
122	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
122	6/5/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	240	Sq. Ft.		
122	6/5/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	120	Sq. Ft.		
122	6/5/2012	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile	3% (Tile Only)	NF	M	G	ND	420	Sq. Ft.		
122	6/5/2012	21	6" Vinyl Cove Base, Dark Green	None Detected	---	NF	M	G	ND	84	Lin. Ft.		



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
123	6/5/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	145	Lin. Ft.	Mail Storage-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling	
123	6/5/2012	24	Under Sink Coating, White	Chrysotile	2%	NF	M	G	ND	1	Each		
123.1	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	9	Each	Storage Closet-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling (2 Assumed In Wall)	
123.1	6/5/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	35	Lin. Ft.		
124	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	5	Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
124	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
124	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	68	Lin. Ft.		
124	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	5640	Sq. Ft.		
124	6/5/2012	27	2' x 2' Ceiling Tile, White, Random Pin Holes	None Detected	---	F	M	G	ND	4	Sq. Ft.		
125	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	5	Each	Office-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck	



### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
125	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
125	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		52 Lin. Ft.		
125	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		189 Sq. Ft.		
126	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck
126	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		61 Lin. Ft.		
126	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		4760 Sq. Ft.		
127	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		12 Each		CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck
127	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
127	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		174 Lin. Ft.		
127	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		4370 Sq. Ft.		





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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
128	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	5	Each	Office-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
128	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
128	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	45	Lin. Ft.		
128	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	144	Sq. Ft.		
129	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	2	Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
129	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
129	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	80	Lin. Ft.		
129	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	4760	Sq. Ft.		
130	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
130	6/5/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	2	Each		



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**Job No.:** 111493  
**Building No.:** 1  
**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crowner Drive  
Dimondale, Michigan  
**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
130	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	80	Lin. Ft.		
130	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	4760	Sq. Ft.		
131	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND	NQ		CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
131	6/5/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	8	Each		
131	6/5/2012	23	2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	12	Sq. Ft.		
131	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	80	Lin. Ft.		
131	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	4688	Sq. Ft.		
131	6/5/2012	27	2' x 2' Ceiling Tile, White, Random Pin Holes	None Detected	---	F	M	G	ND	60	Sq. Ft.		
132	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	4	Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck (1 Assumed)	
132	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND	NQ			



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
132	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
132	6/5/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND		1 Each		
132	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		68 Lin. Ft.		
132	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		2312 Sq. Ft.		
133	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		5 Each		Office-Concrete Floor Under Carpet, Drywall Wall, Tile Drop Ceiling Under Metal Deck
133	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
133	6/5/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND		46 Lin. Ft.		
133	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		45 Lin. Ft.		
133	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		144 Sq. Ft.		
134	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		1 Each		CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck



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Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
134	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
134	6/5/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND		115 Lin. Ft.		
134	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		68 Lin. Ft.		
134	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		2312 Sq. Ft.		
135	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		4 Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck (2 Assumed In Wall)	
135	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		3 Each		
135	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
135	6/5/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND		4 Each		
135	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		68 Lin. Ft.		
135	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		2312 Sq. Ft.		



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Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
136	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Conference Room-Concrete Floor Under Carpet, Drywall Wall, Drop Tile Ceiling Under Drywall Deck	
136	6/5/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		68 Lin. Ft.		
136	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		294 Sq. Ft.		
137	6/7/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Janitors Closet-Concrete Floor, Drywall Wall, Drywall Ceiling Under Metal Deck	
137	6/7/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND		28 Lin. Ft.		
137	6/7/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		59 Sq. Ft.		
138	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		14 Each	Women's Bathroom-Ceramic Tile Floor, Ceramic Tile Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck (14 Assumed In Wall)	
138	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
138	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
138	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		198 Sq. Ft.		



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Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
139	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	14	Each	Women's Bathroom-Ceramic Tile Floor, Ceramic Tile Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck (14 Assumed In Wall)	
139	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
139	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
139	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	198	Sq. Ft.		
140	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	15	Each	Mail Delivery Area-Concrete Floor, Fiberglass Filled Metal Wall, Drywall Wall, Metal Deck (2 Assumed In Wall)	
140	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	54	Each		
140	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
140	6/5/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	299	Lin. Ft.		
140	6/5/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	10	Lin. Ft.		
141	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	6	Each	Telephone Room-Concrete Floor, Fiberglass Filled Metal Wall, Drywall Wall, Tile Drop Ceiling (2 Assumed In Wall)	



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
141	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	10	Each		
141	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
141	6/5/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND	78	Sq. Ft.		
142	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	10	Each	Mail Delivery Area-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck	
142	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	28	Each		
142	6/5/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	7	Each		
142	6/5/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	115	Lin. Ft.		
143	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	12	Each	Mail Delivery Area-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck	
143	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
143	6/5/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	41	Lin. Ft.		



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General Services Building  
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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
143	6/5/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND		115	Lin. Ft.	
144	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		2	Each	Mail Delivery Area-Concrete Floor, Fiberglass Filled Metal Wall, Drywall Wall, Metal Deck (2 Assumed In Wall)
144	6/5/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND		84	Lin. Ft.	
144	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND			NQ	
144	6/5/2012	13	4" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND		23	Lin. Ft.	
144	6/5/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND		9	Lin. Ft.	
145	6/5/2012	2	Fire Door	Assumed	---	NF	M	G	ND		3	Each	Hallway-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck, Concrete Deck
145	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		5	Each	
146	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		2	Each	Printing Room-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck (2 Assumed In Wall)
146	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND			NQ	





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Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
147	6/5/2012	2	Fire Door	Assumed	---	NF	M	G	ND	2	Each	Printing Room-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck	
147	6/5/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	6	Lin. Ft.		
147	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
148	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	34	Each	Printing Room-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck	
148	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
148	6/5/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	184	Lin. Ft.		
149	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	2	Each	Hallway-Concrete Floor, Drywall Wall, Concrete Deck (2 Assumed In Wall)	
149	6/5/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	12	Lin. Ft.		
149	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	5	Each		
149	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
149	6/5/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	170	Lin. Ft.		
150	6/5/2012	28	2' x 4' Ceiling Tile, White, Random Pin and Pen Holes	None Detected	---	F	M	G	ND	193	Sq. Ft.	Office Area-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling, Metal Deck	
150	6/5/2012	29	2' x 4' Ceiling Tile, White, Patterned Pen Holes	None Detected	---	F	M	G	ND	16	Sq. Ft.		
151	6/5/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	16	Sq. Ft.	Office Area-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling, Metal Deck	
151	6/5/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	142	Sq. Ft.		
152	6/5/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	36	Lin. Ft.	Office Area-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Metal Pan Ceiling	
153	6/5/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	6	Each	Storage-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling	
153	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	8	Each	1 Assumed In Wall	
154	6/5/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	10	Each	Electrical Room-Concrete Floor, Concrete Wall, Block Wall, Metal Pan Ceiling	
154	6/5/2012	10	Putty, Red	None Detected	---	NF	M	G	ND		NQ		



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									0-1 ND	1-10 D(G)	>10 SD(L)		
155	6/5/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	16	Lin. Ft.	Generator Room-Concrete Floor, Block Wall, Metal Pan Ceiling	
155	6/5/2012	10	Putty, Red	None Detected	---	NF	M	G	ND		NQ		
156	6/7/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	4	Lin. Ft.	Compressor Room-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck	
156	6/7/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
156	6/7/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
157	6/6/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	4	Each	Office Area Cubicles-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling	
157	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	8	Each		
157	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	2	Each		
157	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	1139	Sq. Ft.		
157	6/6/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	23	Lin. Ft.		



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									0-1 ND	1-10 D(G)	>10 SD(G)		
157	6/6/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	136	Lin. Ft.		
158	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	96	Sq. Ft.	Office-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling	
158	6/6/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	37	Lin. Ft.		
159	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	12	Each	Bathroom-Concrete Under Floor Tile, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck	
159	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	82	Sq. Ft.		
159	6/6/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND	16	Sq. Ft.		
159	6/6/2012	30	12" x 12" Floor Tile, Gray with Dark Gray and White Flecks	None Detected	---	NF	M	G	ND	98	Sq. Ft.		
159	6/6/2012	31	6" Vinyl Cove Base, Black	None Detected	---	NF	M	G	ND	21	Lin. Ft.		
160	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	12	Each	Office-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Tile Drop Ceiling	
160	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	137	Sq. Ft.		



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**Job No.:** 111493  
**Building No.:** 1  
**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crowner Drive  
Dimondale, Michigan  
**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
160	6/6/2012	14	Window Caulk, Off-White	None Detected	---	NF	M	G	ND	23	Lin. Ft.		
160	6/6/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	34	Lin. Ft.		
161	6/6/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	4	Lin. Ft.	Office Area Cubicles-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
161	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	8	Each		
161	6/6/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
161	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
161	6/6/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND	63	Lin. Ft.		
161	6/6/2012	32	2' x 4' Ceiling Tile, White, Random Pin and Knife Holes	None Detected	---	F	M	G	ND	475	Sq. Ft.		
162	6/6/2012	2	Fire Door	Assumed	---	NF	M	G	ND	1	Each	Conference Room-Concrete Floor Under Carpet, Drywall Wall, Fiberglass Filled Metal Wall, Tile Drop Ceiling Under Metal Deck	
162	6/6/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	4	Lin. Ft.		



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									0-1 ND	1-10 D(G)	>10 SD(L)		
162	6/6/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
162	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
162	6/6/2012	15	4" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		21 Lin. Ft.		
162	6/6/2012	16	6" Vinyl Cove Base, Tan	None Detected	---	NF	M	G	ND		53 Lin. Ft.		
162	6/6/2012	32	2' x 4' Ceiling Tile, White, Random Pin and Knife Holes	None Detected	---	F	M	G	ND		768 Sq. Ft.		
163	6/6/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		16 Each		Loading Dock-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck
163	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		56 Each		
163	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND		2 Each		
163.1	6/6/2012	33	4" Vinyl Cove Base, Brown	None Detected	---	NF	M	G	ND		15 Lin. Ft.		Bathroom-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling
163.2	6/6/2012	33	4" Vinyl Cove Base, Brown	None Detected	---	NF	M	G	ND		15 Lin. Ft.		Bathroom-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
164	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Office-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Drywall Wall, Metal Pan Ceiling	
164	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		44 Lin. Ft.		
165	6/6/2012	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	None Detected	---	F	M	G	ND		138 Sq. Ft.	Office-Concrete Floor Under Carpet, Fiberglass Filled Metal Wall, Drywall Wall, Metal Pan Ceiling	
166	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Storage Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
166	6/6/2012	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	None Detected	---	F	M	G	ND		640 Sq. Ft.		
166	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		100 Lin. Ft.		
167	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	L	SD		10 Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
167	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
167	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		2890 Sq. Ft.		
167	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		142 Lin. Ft.		



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
168	6/6/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	3	Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
168	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	L	SD	8	Each		
168	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
168	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	2890	Sq. Ft.		
168	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	68	Lin. Ft.		
169	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	3	Each	CPC Area-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	
169	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
169	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND	2890	Sq. Ft.		
169	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND	142	Lin. Ft.		
170	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Telecom Room-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck	





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**Building:** General Services Building

**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
170	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		96	Sq. Ft.	
170	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		37	Lin. Ft.	
171	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		Mail Distribution Room-Concrete Floor, Drywall Wall, Tile Drop Ceiling Under Metal Deck
171	6/6/2012	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	None Detected	---	F	M	G	ND		584	Sq. Ft.	
171	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		93	Lin. Ft.	
172	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND		26	Each	Warehouse Area-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck
172	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
172	6/6/2012	25	6" Vinyl Cove Base, Gray	None Detected	---	NF	M	G	ND		90	Lin. Ft.	
173	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND		2	Each	Warehouse Area-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck
174	6/6/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		4	Each	Warehouse Area-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck



### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
174	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	18	Each		
174	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	2	Each		
174	6/6/2012	36	Safe Door	Assumed	---	NF	M	G	ND	1	Each		
174.1	6/6/2012	33	4" Vinyl Cove Base, Brown	None Detected	---	NF	M	G	ND	17	Lin. Ft.	Bathroom-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling	
174.2	6/6/2012	33	4" Vinyl Cove Base, Brown	None Detected	---	NF	M	G	ND	17	Lin. Ft.	Bathroom-Concrete Floor, Fiberglass Filled Metal Wall, Metal Pan Ceiling	
175	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	5	Each	MSP Warehouse-Concrete Floor, Fiberglass Filled Metal Wall, Drywall Wall, Metal Deck	
175	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
176	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Warehouse-Concrete Floor, Fiberglass Filled Metal Wall, Drywall Wall, Metal Deck	
176	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	5	Each		
176	6/6/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	100	Lin. Ft.		



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**Building:** General Services Building  
**Date:** 24-Jul-12

### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-friable	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(L)		
177	6/6/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND	4	Each	Warehouse-Concrete Floor, Fiberglass Filled Metal Wall, Block Wall, Metal Deck	
177	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	26	Each		
177	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
177	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	4	Each		
178	6/6/2012	2	Fire Door	Assumed	---	NF	M	G	ND	5	Each	Warehouse-Concrete Floor, Fiberglass Filled Metal Wall, Block Wall, Metal Deck	
178	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	22	Each		
178	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	L	SD	12	Each		
179	6/6/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	20	Each	Warehouse-Concrete Floor, Fiberglass Filled Metal Wall, Metal Deck	
180	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Warehouse-Concrete Floor, Fiberglass Filled Metal Wall, Drywall Wall, Metal Deck	
180	6/6/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND	13	Each		



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri-able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
180	6/6/2012	18	6" Vinyl Cove Base, Dark Brown	None Detected	---	NF	M	G	ND	120	Lin. Ft.		
201	6/4/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	26	Lin. Ft.	Upper Mechanical Room-Concrete Floor, Fiberglass Filled Metal Wall, Concrete Wall, Metal Deck	
201	6/4/2012	5	Putty, Red/Brown	None Detected	---	NF	M	G	ND		NQ		
201	6/4/2012	6	Mud Compound Insulation On Fiberglass Lines - Heating System	None Detected	---	F	T	G	ND	3	Each		
201	6/4/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
201.1	6/4/2012	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	None Detected	---	F	T	G	ND		Each	Chase Way-Fiberglass Wall	
202	6/4/2012	1	Mud Compound Insulation On Fiberglass Lines - Chilled Water	None Detected	---	F	T	G	ND	4	Each	Duct Pipe Room Above Ceiling-Metal Pan Floor, Fiberglass Filled Metal Wall, Metal Deck Ceiling	
202	6/4/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
203	6/5/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND	96	Lin. Ft.	Upper Mechanical Room-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck	
203	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		



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									0-1 ND	1-10 D(G)	>10 SD(G)		
203	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
203	6/5/2012	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	None Detected	---	F	T	G	ND		9 Each		
203	6/5/2012	10	Putty, Red	None Detected	---	NF	M	G	ND		NQ		
204	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Electrical Room-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck	
205	6/5/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ	Telecom Room-Concrete Floor, Drywall Wall, Metal Deck	
205	6/5/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
206	6/6/2012	4	Vibration Dampening Cloth, Black	None Detected	---	NF	M	G	ND		124 Lin. Ft.	Upper Mechanical Room-Concrete Floor, Drywall Wall, Fiberglass Filled Metal Wall, Metal Deck	
206	6/6/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ		
206	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
207	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ	Electrical Room-Concrete Floor, Drywall Wall, Metal Deck	



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									0-1 ND	1-10 D(G)	1-25 D(L)		
208	6/6/2012	7	Duct Caulk, Gray	None Detected	---	NF	M	G	ND		NQ	Telecom Room-Concrete Floor, Drywall Wall, Metal Deck	
208	6/6/2012	8	Drywall and Drywall Joint Compound	None Detected	---	NF	M	G	ND		NQ		
301	6/6/2012	34	Exterior Roof Caulk, Black and White Mix	None Detected	---	NF	M	G	ND		30 Lin. Ft.	Roof	
302	6/6/2012	0	No Asbestos Detected	--	---	--	--	---	---		--	Roof	
303	6/6/2012	34	Exterior Roof Caulk, Black and White Mix	None Detected	---	NF	M	G	ND		8 Lin. Ft.	Roof	
304	6/6/2012	0	No Asbestos Detected	--	---	--	--	---	---		--	Roof	
305	6/6/2012	34	Exterior Roof Caulk, Black and White Mix	None Detected	---	NF	M	G	ND		33 Lin. Ft.	Roof	
401	6/6/2012	35	Exterior Window Caulk, Gray	None Detected	---	NF	M	G	ND		567 Lin. Ft.	Exterior Wall	
402	6/6/2012	35	Exterior Window Caulk, Gray	None Detected	---	NF	M	G	ND		378 Lin. Ft.	Exterior Wall	
403	6/6/2012	0	No Asbestos Detected	--	---	--	--	---	---		--	Exterior Wall	



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### Building Survey Summary

Function Area No.	Inspection Date	HA No.	Description	Asbestos Type	Asbestos Percent	Friable/ Non-fri- able	Type Therm.(T) Surf.(S) Misc.(M)	Damage Loc.(L) Gen.(G)	% Damage			Approx. Quantity	Remarks
									0-1 ND	1-10 D(G)	>10 SD(G)		
404	6/6/2012	35	Exterior Window Caulk, Gray	None Detected	---	NF	M	G	ND	273	Lin. Ft.	Exterior Wall	

## **SECTION 4.0 – BULK SAMPLING AND ANALYSIS**



## **SECTION 4.1**

### **SAMPLING PROCEDURE**

Samples were selected at random. Minimum sampling requirements have met requirements of OSHA Regulations for Construction, Subpart D - Occupational Health and Environmental Controls, 29 CFR 1926.1101 - Asbestos. These OSHA regulations require in order for a material to be considered non asbestos-containing, that analysis of thermal system insulations and surfacing materials consist of a minimum three bulk samples being analyzed by a laboratory which participates in a nationally recognized testing program such as the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute for Standards and Technology (NIST) or the Round Robin for bulk samples administered by the American Industrial Hygiene Association (AIHA) or an equivalent nationally-recognized round robin testing program.

This inspection, including all sampling was conducted by State of Michigan accredited Asbestos Building Inspectors. Copies of the Inspector's current Training Certificates and State Accreditations are attached to this report.

When at all possible, sampling was performed in a non-destructive manner. Where possible, samples were obtained in unobtrusive areas. Holes from core samples of thermal system insulation were repaired. The inspector performing the sampling had respiratory protection as required and performed the work in a professional and safe manner using wet methods and decontamination procedures as necessary to guard against localized building contamination.

The following report entitled "Sample Locations Summary" provides the site locations of each of the samples taken. The homogeneous material that the sample is taken from is represented in the sample number. The first one or two digits of the sample number represent the homogeneous material in which the sample was found. For example: Sample #101 was the first sample taken for Homogeneous Material #1. Sample #303 was the third sample taken from Homogeneous Material #3.

## **SECTION 4.2 - SAMPLE LOCATIONS SUMMARY**



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**Building:** General Services Building

**Date:** 06-Jul-12

## Sample Location Summary

Field Sample Number	Function Area Number	Homogeneous Material Number	Material Description	Sample Location
101	001	1	Mud Compound Insulation On Fiberglass Lines - Chilled Water	16' N, 1.5' E of SW Cor. 4' High
102	001	1	Mud Compound Insulation On Fiberglass Lines - Chilled Water	17.5' N, 1' E of SW Cor. 10.5' High
103	202	1	Mud Compound Insulation On Fiberglass Lines - Chilled Water	2' S, 1' W of NE Cor. 2' High
301	101	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	12' E, 1' N of SW Cor. 8.5' High
302	177	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	33' W, 1' N of SE Cor. 2' High
303	120	3	Mud Compound Insulation On Fiberglass Lines - Domestic Water	14' S, 10' W of NE Cor. 9' High
401	201	4	Vibration Dampening Cloth, Black	32.5' W, 10' N of SE Cor. 5.5' High
501	201	5	Putty, Red/Brown	10' S of NE Cor. 5' High
601	111	6	Mud Compound Insulation On Fiberglass Lines - Heating System	1' N, 1' W of SE Cor. 1' High
602	120	6	Mud Compound Insulation On Fiberglass Lines - Heating System	9' E, 7' S of NW Cor. 8' High
603	154	6	Mud Compound Insulation On Fiberglass Lines - Heating System	31' W, 9.5' S of NE Cor. 6' High
701	201	7	Duct Caulk, Gray	7' S, 12' W of NE Cor. 4' High



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**Building No.:** 1

**Facility:** Asbestos Building Survey  
General Services Building  
7461 Crowner Drive  
Dimondale, Michigan

**Building:** General Services Building

**Date:** 06-Jul-12

## Sample Location Summary

Field Sample Number	Function Area Number	Homogeneous Material Number	Material Description	Sample Location
801	108	8	Drywall and Drywall Joint Compound	1' S of NW Cor.
802	172	8	Drywall and Drywall Joint Compound	89' W of NE Cor. 6' High
803	127	8	Drywall and Drywall Joint Compound	36' W of SE Cor. 16' High
901	203	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	1.5' N, 1.5' E of SW Cor. 8.5' High
902	132	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	56' E, 48' S of NW Cor. 22.5' High
903	203	9	Mud Compound Insulation On Fiberglass Lines - Roof Drains	5' N, 2' E of SW Cor. 12' High (Sump)
1001	203	10	Putty, Red	6.5' N, 1.5' E of SW Cor. 8.5' High
1101	105	11	2' x 4' Ceiling Tile, White, Random Pin Holes and Gouges	17.5' N, 19.5' E of SW Cor. 9.5' High
1201	105	12	2' x 4' Ceiling Tile, White with Lateral Gouges and Pin Holes	17.5' N, 19.5' E of SW Cor. 9.5' High
1301	108	13	4" Vinyl Cove Base, Tan	NW Cor.
1401	105	14	Window Caulk, Off-White	1.5' N from Doorway of FA 106, 3' High
1501	108	1	Mud Compound Insulation On Fiberglass Lines - Chilled Water	3' N, 3' W of SE Cor.



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## Sample Location Summary

Field Sample Number	Function Area Number	Homogeneous Material Number	Material Description	Sample Location
1601	111	16	6" Vinyl Cove Base, Tan	SW Cor.
1701	114	17	12" x 12" Floor Tile, Off-White with Gray Flecks	18' N of SW Cor.
1801	114	18	6" Vinyl Cove Base, Dark Brown	NE Cor.
1901	115.1	19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	2.5 W, 6" N of SE Cor.
2001	116	20	2' x 2' Ceiling Tile, White, Textured, Recessed	SW Cor. 8' High
2101	117	21	6" Vinyl Cove Base, Dark Green	NE Cor. Of Entrance
2201	119	22	12" x 12" Floor Tile, White with Gray and Dark Gray Flecks	9' S, 1.5' W of NE Cor.
2301	120	23	2' x 2' Ceiling Tile, White, Random Pin Holes and Gouges	SW Cor. 7.5' High
2401	123	24	Under Sink Coating, White	Under Sink
2501	136	25	6" Vinyl Cove Base, Gray	NE Cor.
2601	124	26	2' x 2' Ceiling Tile, White, Lateral Grooves and Pin Holes	26' S, 14' W of NE Cor. 12' High
2701	124	27	2' x 2' Ceiling Tile, White, Random Pin Holes	28' S, 28' W of NE Cor. 12' High



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## Sample Location Summary

<b>Field Sample Number</b>	<b>Function Area Number</b>	<b>Homogeneous Material Number</b>	<b>Material Description</b>	<b>Sample Location</b>
2801	150	28	2' x 4' Ceiling Tile, White, Random Pin and Pen Holes	6' N, 4' E of SW Cor. 7.5' High
2901	150	29	2' x 4' Ceiling Tile, White, Patterned Pen Holes	6' N, 4' E of SW Cor. 7.5' High
3001	159	30	12" x 12" Floor Tile, Gray with Dark Gray and White Flecks	SW Cor.
3101	159	31	6" Vinyl Cove Base, Black	SW Cor.
3202	161	32	2' x 4' Ceiling Tile, White, Random Pin and Knife Holes	17.5' W, 7.5' S of NE Cor. 10.5' High
3301	163.2	33	4" Vinyl Cove Base, Brown	SW Cor.
3401	301	34	Exterior Roof Caulk, Black and White Mix	NW Cor. 3' High
3501	401	35	Exterior Window Caulk, Gray	26' N of Main Entrance, 3' High

## **SECTION 4.3**

### **LABORATORY PROCEDURES**

All suspect asbestos containing materials were properly packaged and taken by company vehicle to Materials Testing Consultants, Inc.'s Corporate Office in Grand Rapids, Michigan. The samples were then properly packaged and sent by Federal Express to EMSL Analytical, Inc. in Indianapolis, Indiana for analysis. EMSL Analytical, Inc. preparation and analysis of bulk samples was completed using a Stereoscopic Reflected Light Microscope and Polarized Light Microscope with dispersion staining capabilities to comply with EPA/600/R-93/116, July 1993, "Method for the Determination of Asbestos in Bulk Building Materials". The EMSL Analytical, Inc. results and Chain of Custody are included following this section. The results have been summarized in the Homogeneous Material Report and the Building Survey Summary.

## **SECTION 4.4 - ANALYSIS RESULTS**





# EMSL Analytical, Inc.

2001 East 52nd St., Indianapolis, IN 46205  
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<http://www.emsl.com> [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161209617  
CustomerID: MATE53  
CustomerPO:  
ProjectID:

Attn: **Chris Kestner**  
**Materials Testing Consultants**  
**693 Plymouth N. E.**  
**Grand Rapids, MI 49505**

Phone: (616) 456-5469  
Fax: (616) 456-5784  
Received: 06/11/12 9:40 AM  
Analysis Date: 6/18/2012  
Collected: 6/7/2012

Project: **GENERAL SERVICES BUILDING**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
101 161209617-0001		White Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
102 161209617-0002		White Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
103 161209617-0003		White Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
301 161209617-0004		White Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
302 161209617-0005		White Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
303 161209617-0006		White Fibrous Homogeneous	40% Min. Wool	60% Non-fibrous (other)	None Detected
401 161209617-0007		White/Black Fibrous Homogeneous	60% Glass	40% Non-fibrous (other)	None Detected
501 161209617-0008		Brown/Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)  
Jadda Moffett (46)

Richard Harding, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, AZ0939, CA 2575, CO AL-15132, TX 300262

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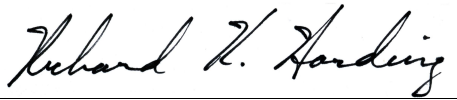
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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
601 161209617-0009		White Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (other)	None Detected
602 161209617-0010		White Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (other)	None Detected
603 161209617-0011		White Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (other)	None Detected
701 161209617-0012		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
810 161209617-0013		Brown/White Fibrous Heterogeneous	25% Cellulose	5% Non-fibrous (other) 70% Gypsum	None Detected
802 161209617-0014		Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	8% Non-fibrous (other) 70% Gypsum	None Detected
803 161209617-0015		Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	8% Non-fibrous (other) 70% Gypsum	None Detected
901 161209617-0016		White Non-Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (other)	None Detected

Analyst(s)  
Jadda Moffett (46)

  
Richard Harding, Laboratory Manager  
or other approved signatory

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
902 161209617-0017		White Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (other)	None Detected
903 161209617-0018		White Fibrous Homogeneous	60% Min. Wool	40% Non-fibrous (other)	None Detected
1001 161209617-0019		Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1101 161209617-0020		White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
1201 161209617-0021		White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
1301 161209617-0022		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1401 161209617-0023		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1501 161209617-0024		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Jadda Moffett (46)

Richard Harding, Laboratory Manager  
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Project: **GENERAL SERVICES BUILDING**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1601 161209617-0025		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1701 161209617-0026		White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1801-Cove Base 161209617-0027		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1801-Mastic 161209617-0027A		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1901-Floor Tile 161209617-0028		Black Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
1901-Mastic 161209617-0028A		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2001 161209617-0029		Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
2101 161209617-0030		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)  
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Richard Harding, Laboratory Manager  
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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2201 161209617-0031		Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2301 161209617-0032		Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
2401 161209617-0033		Pink Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
2501 161209617-0034		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2601 161209617-0035		Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
2701 161209617-0036		Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
2801 161209617-0037		Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
2901 161209617-0038		Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected

Analyst(s)

Jadda Moffett (46)

Richard Harding, Laboratory Manager  
or other approved signatory

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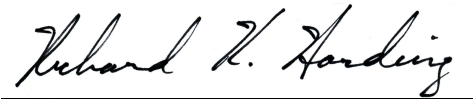
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**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
3001 161209617-0039		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3101 161209617-0040		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3201 161209617-0041		Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	5% Non-fibrous (other) 15% Perlite	None Detected
3301 161209617-0042		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3401 161209617-0043		Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3501 161209617-0044		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s) \_\_\_\_\_  
 Jadda Moffett (46)

  
 Richard Harding, Laboratory Manager  
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PROJECT NO.: 111493

161209617

PROJECT General Services Building  
CLIENT Michigan Department of Technology, Management and Budget

**CHAIN OF CUSTODY**

Verbal Results to: Chris Kestner Written Report to: Chris Kestner  
Telephone No.: 616-456-5469 Turnaround Time: 5 days  
FAX No.: 616-456-5784 PO #: NA  
Email: ckestner@mateco.com Attached Documents: NA  
Delivered By: Federal Express

REMARKS: Please e-mail results when complete.

Client No.	Sample Description	Sampled By	Date Sampled	Type of Sample	Air Volume	Analysis Requested	MTC No.
101	M.C.I. on Chilled Water	CK	6/7	Bulk	None	PLM	
102	M.C.I. on Chilled Water	CK	6/7	Bulk	None	PLM	
103	M.C.I. on Chilled Water	CK	6/7	Bulk	None	PLM	
301	M.C.I. on Domestic Water	CK	6/7	Bulk	None	PLM	
302	M.C.I. on Domestic Water	CK	6/7	Bulk	None	PLM	
303	M.C.I. on Domestic Water	CK	6/7	Bulk	None	PLM	
401	VIB. Dampening Cloth	CK	6/7	Bulk	None	PLM	
501	Red/Brown Putty	CK	6/7	Bulk	None	PLM	
601	M.C.I. on Heating System	CK	6/7	Bulk	None	PLM	
602	M.C.I. on Heating System	CK	6/7	Bulk	None	PLM	
603	M.C.I. on Heating System	CK	6/7	Bulk	None	PLM	
701	Gray Duct Caulk	CK	6/7	Bulk	None	PLM	
801	Drywall	CK	6/7	Bulk	None	PLM	
802	Drywall	CK	6/7	Bulk	None	PLM	
803	Drywall	CK	6/7	Bulk	None	PLM	
901	M.C.I. on Roof Drains	CK	6/7	Bulk	None	PLM	
902	M.C.I. on Roof Drains	CK	6/7	Bulk	None	PLM	
903	M.C.I. on Roof Drains	CK	6/7	Bulk	None	PLM	
1001	Red Putty	CK	6/7	Bulk	None	PLM	
1101	2'x4' Ceiling Tile	CK	6/7	Bulk	None	PLM	
1201	2'x4' Ceiling Tile	CK	6/7	Bulk	None	PLM	



# Materials Testing Consultants

www.mtc-test.com • 800.968.8378

PROJECT NO.: 111493

9617

PROJECT General Services Building  
CLIENT Michigan Department of Technology, Management and Budget

CHAIN OF CUSTODY							
1301	4" Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
1401	Interior Window Caulk	CK	6/7	Bulk	None	PLM	
1501	Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
1601	Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
1701	12"x12" Floor Tile	CK	6/7	Bulk	None	PLM	
1801	Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
1901	12"x12" Floor Tile	CK	6/7	Bulk	None	PLM	
2001	2'x2' Ceiling Tile	CK	6/7	Bulk	None	PLM	
2101	Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
2201	12"x12" Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
2301	2'x2' Ceiling Tile	CK	6/7	Bulk	None	PLM	
2401	Under Sink Coating	CK	6/7	Bulk	None	PLM	
2501	Vinyl Cove Base	CK	6/7	Bulk	None	PLM	
2601	2'x2' Ceiling Tile	CK	6/6	Bulk	None	PLM	
2701	2'x2' Ceiling Tile	CK	6/6	Bulk	None	PLM	
2801	2'x4' Ceiling Tile	CK	6/6	Bulk	None	PLM	
2901	2'x4' Ceiling Tile	CK	6/6	Bulk	None	PLM	
3001	12"x12" Floor Tile	CK	6/6	Bulk	None	PLM	
3101	Vinyl Cove Base	CK	6/6	Bulk	None	PLM	
3201	2'x4' Ceiling Tile	CK	6/6	Bulk	None	PLM	
3301	Vinyl Cove Base	CK	6/6	Bulk	None	PLM	
3401	Ext. Roof Caulk	CK	6/6	Bulk	None	PLM	
3501	Ext. Window Caulk	CK	6/6	Bulk	None	PLM	

Relinquished by:	Date:	Time:	Received by:
	6-8-12 6/11/12	17:00 9:40AM	Federal Express 



## **SECTION 5.0 - ASSESSMENTS AND RECOMMENDATIONS**

**SECTION 5.1**

**ASSESSMENTS AND RECOMMENDATIONS**

Inspection of the General Services Building identified thirty-six (36) separate suspect asbestos containing materials. Of these thirty-six (36) materials, thirty-two (32) were sampled and through laboratory analysis, found not to contain asbestos, two (2) were not sampled but assumed to contain asbestos, and two (2) were identified through laboratory analysis to positively contain asbestos. Materials known or assumed to contain asbestos are summarized as follows:

Homogeneous Area Number	Homogeneous Area Name	Asbestos Type and Percent	Quantity
2	Fire Door	Assumed	16 Each
19	12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks	Chrysotile 3% (Tile Only)	3,022 Sq. Ft.
24	Under Sink Coating, White	Chrysotile 2%	1 Each
36	Safe Door	Assumed	1 Each

Fire Doors (HA-2) and Safe Door (HA-36) which are assumed to contain asbestos should be maintained in their current undamaged condition. The Fire Doors are located throughout the building and the Safe Door is located on the old food stamps vault in FA-174. Activities such as the cutting or drilling through the outer metal jacket and into the door's core materials could potentially result in a release of asbestos containing materials and should be avoided.

Asbestos containing 12" x 12" Floor Tile, Dark Brown with Black Streaks and Tan Flecks (HA-19) was observed to be in good condition. This material was located in the printing rooms (FA-114 and FA-115), hallways (FA-117 and FA-122), conference room (FA-118), lunch room (FA-119) and a custodial closet FA-115.1). The majority of this material is located under carpeting throughout the building and therefore not in direct contact with building occupants. This material should be maintained in the current condition. Any limited removal or repair must be done by a State of Michigan licensed abatement contractor using trained and accredited workers and supervisors. Asbestos containing floor tile generally is not a hazard to building occupants unless cut, drilled or otherwise made friable through mechanical action. Tile not under carpet should be maintained with a coat of wax and should be buffed and scrubbed with nonabrasive pads.

Asbestos containing Under Sink Coating, White (HA-24) was observed in good condition. This material was located under the counter within a mail storage room (FA-123) and not in direct contact with building occupants. This material should be maintained in the current condition. Any limited removal or repair must be done by a State of Michigan licensed abatement contractor using trained and accredited workers and supervisors. Asbestos containing under sink coating generally is not a hazard to building occupants unless dry sanded or otherwise made friable through mechanical action.

**It is recommended that the General Services Building Manager or the Department of Technology, Management and Budget contact Materials Testing Consultants, Inc. prior to any renovation activities to review the plans to determine if materials are to be impacted and so that MTC can recommend proper abatement levels to allow for these renovation activities to proceed.**

**Personnel Requirements and Recommendations:**

The Occupational Safety and Health Administration requires that the facility maintain an asbestos management plan to keep a record of asbestos containing materials and their condition and label asbestos containing materials within buildings. This record will provide facility maintenance staff, visiting contractors, and employees with the information that they require to minimize the risk of exposure to elevated fiber levels during repair and/or maintenance activities. MTC recommends that the General Services Building adopt a management plan based upon this survey report, conduct employee training, develop an operations and maintenance program and label asbestos containing materials as necessary to comply with OSHA Standards.

Proper training of personnel involved in activities with asbestos containing materials (ACM) is necessary to protect the health of the workers. Training requirements are dependent upon the activities with ACM that are to be conducted. Training, as described below, is a summary of the OSHA Standard that outlines training requirements. Personnel should consult with the OSHA Standard or with MTC for any clarifications or interpretations. Activities involving ACM are classified in the following table along with the required training to conduct these activities:

**Types of Asbestos Work under OSHA Standard 1926.1101 “Asbestos Standard for Construction” regulated by the Michigan Department of Licensing and Regulatory Affairs**

- Class I: Activities involving the removal of Thermal System Insulation (TSI) and surfacing ACM.
- Class II: Activities involving the removal of ACM which is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile, and sheeting, roofing and siding shingles, and construction mastics.
- Class III: Repair and maintenance operations where ACM, including TSI and surfacing ACM may be disturbed.
- Class IV: Maintenance and custodial activities during which employees contact but do not disturb ACM and activities to cleanup dust, waste and debris resulting from Class I, II, and III activities.

**Training Requirements based on Activities under OSHA Standard 1926.1101 “Asbestos Standard for Construction” regulated by the Michigan Department of Licensing and Regulatory Affairs**

- Class I&II work must be supervised by a competent person with minimum **40-hour** training conducted in accordance with EPA’s Model Accreditation Plan for supervisor. Workers conducting abatement must obtain accreditation with minimum **32-hour** training for Abatement Workers.
- Class II work where negative pressure enclosures and critical barriers are not necessary, **8-hour** “hands on training” is required. This would include work with asbestos containing roofing, flooring, siding, ceiling tiles, or transite panels.
- Class III work must be supervised by a competent person with training in accordance with EPA training for local education agency maintenance and custodial staff. This training shall be “hands on” and be a minimum of **16-hours**.
- Class IV work must be conducted by training in accordance with EPA training for local education agency maintenance and custodial staff and be a minimum **2 hours** of asbestos awareness training to familiarize themselves with issues relating to asbestos containing building materials within their facilities.

**APPENDIX A - Materials Testing Consultants, Inc. Employee Credentials**

**State of Michigan**  
 Department of Licensing and Regulatory Affairs  
 Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

**Christopher J. Kestner**  
 1388 Cobb Drive SE  
 Apartment 2A  
 Grand Rapids, MI 49508

**Accreditation Number**  
 A10977

**Expiration Date**  
 08/11/2012

**DOB: 05/26/1960**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered 94275

**State of Michigan**  
 Department of Licensing and Regulatory Affairs  
 Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Management Planner**

**Christopher J. Kestner**  
 1388 Cobb Drive SE  
 Apartment 2A  
 Grand Rapids, MI 49508

**Accreditation Number**  
 A10977

**Expiration Date**  
 10/18/2012

**DOB: 05/26/1960**

This individual has satisfactorily met or exceeded the requirements of Section 206 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered 95592

**State of Michigan**  
 Department of Licensing and Regulatory Affairs  
 Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Project Designer**

**Christopher J. Kestner**  
 1388 Cobb Drive SE  
 Apartment 2A  
 Grand Rapids, MI 49508

**Accreditation Number**  
 A10977

**Expiration Date**  
 12/07/2012

**DOB: 05/26/1960**

This individual has satisfactorily met or exceeded the requirements of Section 206 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered 96140

*Training was conducted in accordance with TOSCA II;  
the requirements of 40 CFR 763, (AHERA) Appendix C;  
and Michigan Act 440, PA 1988*

*CERTIFICATE NO. BIMPR12060801*

**TILLOTSON ENVIRONMENTAL OCCUPATIONAL CONSULTING**

*presents this certificate to:*

**CHRIS KESTNER /SS# 3358**

*Dated:*

**JUNE 8, 2012**

*for successful completion of the course and examination for:*

**8-HOUR ASBESTOS BUILDING INSPECTOR/MANAGEMENT PLANNER  
REFRESHER TRAINING**

*EXPIRATION DATE: JUNE 8, 2013*

  
\_\_\_\_\_  
**MICHAEL R. TILLOTSON, CIH, CHMM**

*101 W. Cass Suite C  
St. Johns, MI 48879  
989-227-2000*

*Training was conducted in accordance with  
the requirements of 40 CFR 763 (AHERA) Appendix C  
and Michigan Act 440, PA 1988*

CERTIFICATE NO. PDR11100502

**TILLOTSON ENVIRONMENTAL OCCUPATIONAL CONSULTING**

*presents this certificate to:*

CHRIS KESTNER/SS# 3358

*Dated:*

OCTOBER 5, 2011

*for successful completion of the course and examination for:*

**ASBESTOS ABATEMENT PROJECT DESIGNER REFRESHER COURSE**

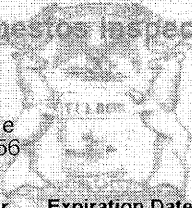
EXPIRATION DATE: OCTOBER 5, 2012

  
\_\_\_\_\_  
MICHAEL R. TILLOTSON, CIH, CHMM

101 W. Cass Suite C  
St. Johns, MI 48879  
989-227-2000



Asbestos Inspector



**Robert J. Crane**  
15224 144th Avenue  
Springlake, MI 49456

**Accreditation Number**  
A42252

**Expiration Date**  
12/31/2013

**DOB: 04/28/1985**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Asbestos Inspector  
not valid if altered

38218



**Environmental and Occupational Consulting and Training Inc.**  
4000 Portage Road, Suite 100  
Kalamazoo, MI 49001  
269-383-6960

**Robert Crane**

Social Security Number: **378-96-7162**

Has Successfully Completed the  
**Asbestos Building Inspector Initial (24 hour)**

On January 9-11, 2012  
Examination Date: January 11, 2012  
Expiration: January 11, 2013

In accordance with 40 CFR 763, Michigan Public Act 440 of 1988, 40 CFR 61 and TSCA Title II

2012-007  
Certificate Number

*Alisa R Kahn*  
A. Clark Kahn III, Ph.D.

**APPENDIX B – HOMOGENEOUS MATERIALS PHOTOS**

Homogeneous Material No. 1 – Mud Compound Insulation on  
Fiberglass Lines – Chilled Water



Homogeneous Material No. 2 – Fire Door



Homogeneous Material No. 3 – Mud Compound on Fiberglass Lines – Domestic Water



Homogeneous Material No. 4 – Vibration Dampening Cloth, Black



Homogeneous Material No. 5 – Putty, Red/Brown



Homogeneous Material No. 6 – Mud Compound Insulation on Fiberglass Lines – Domestic Water



Homogeneous Material No. 7 – Duct Caulk, Gray



Homogeneous Material No. 8 – Drywall



Homogeneous Material No. 9 – Mud Compound Insulation on  
Fiberglass Lines – Roof Drains



Homogeneous Material No. 10 – Putty, Red



Homogeneous Material No. 11 – 2’x4’ Ceiling Tile, White, Random Pin Holes and Gouges



Homogeneous Material No. 12 – 2’x4’ Ceiling Tile, White, Lateral Gouges and Pin Holes





Homogeneous Material No. 13 – 4” Vinyl Cove Base, Tan



Homogeneous Material No. 14 – Window Caulk, Off-White



Homogeneous Material No. 15 – 4” Vinyl Cove Base, Gray



Homogeneous Material No. 16 – 6” Vinyl Cove Base, Tan



Homogeneous Material No. 17 – 12”x12” Floor Tile, Off-White



Homogeneous Material No. 18 – 6” Vinyl Cove Base, Dark Brown



Homogeneous Material No. 19 – 12”x12” Floor Tile, Dark Brown with Black Streaks and Tan Flecks



Homogeneous Material No. 20 – 2’x2’ Ceiling Tile, White, Textured, Recessed



Homogeneous Material No. 21 – 6” Vinyl Cove Base, Dark Green



Homogeneous Material No. 22 – 9”x9” Floor Tile, Rose, White and Brown Streaks



Homogeneous Material No. 23 – 2'x2' Ceiling Tile, White, Random Pin Holes and Gouges



Homogeneous Material No. 24 – Under Sink Coating, White



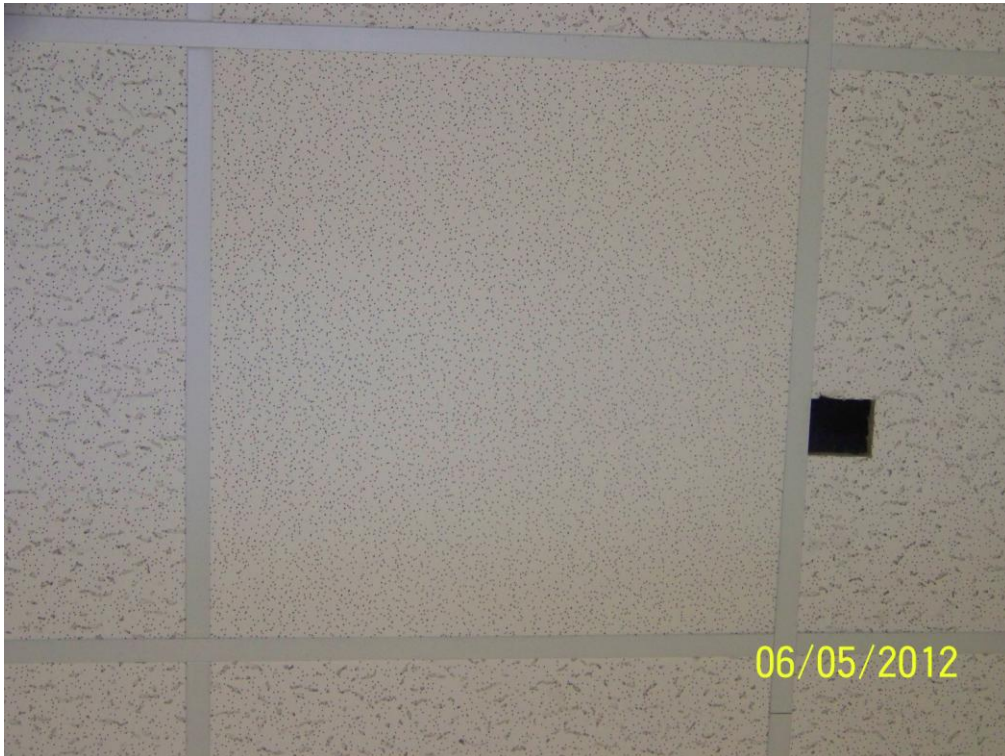
Homogeneous Material No. 25 – 6” Vinyl Cove Base, Gray



Homogeneous Material No. 26 – 2’x2’ Ceiling Tile, White, Lateral Grooves and Pin Holes



Homogeneous Material No. 27 – 2'x2' Ceiling Tile, White,  
Random Pin Holes



Homogeneous Material No. 28 – 2'x4' Ceiling Tile, White,  
Random Pin and Pen Holes





Homogeneous Material No. 29 – 2’x4’ Ceiling Tile, White, Patterned Pen Holes



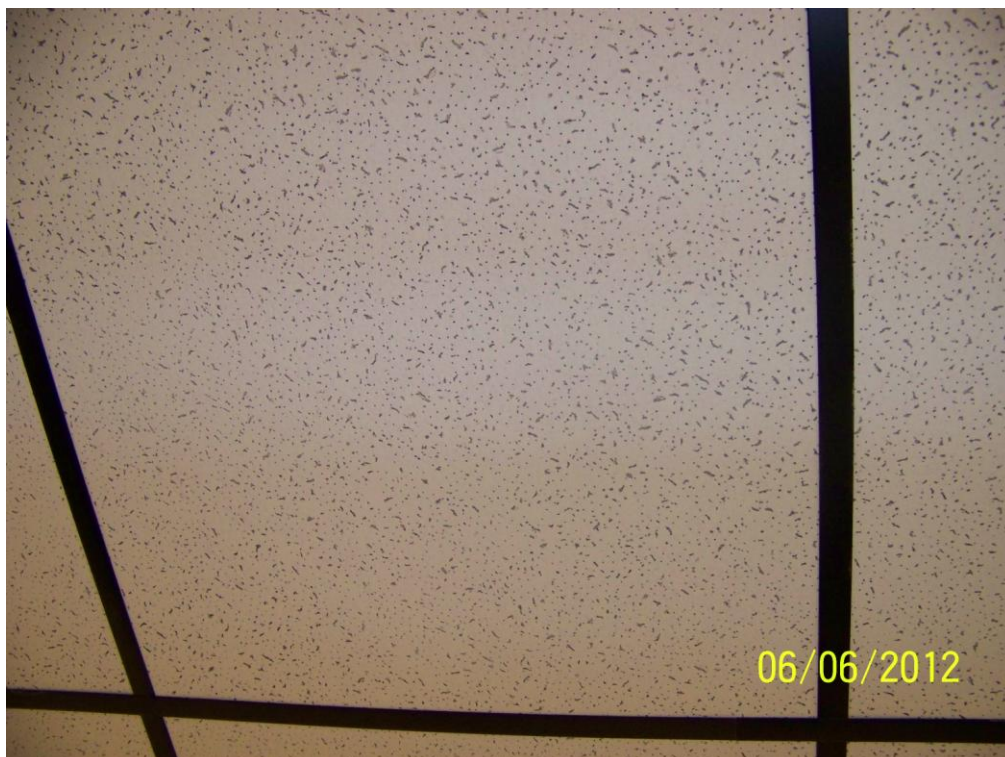
Homogeneous Material No. 30 – 12”x12” Floor Tile, Gray with Dark Gray and White Flecks



Homogeneous Material No. 31 – 6” Vinyl Cove Base, Black



Homogeneous Material No. 32 – 2’x4’ Ceiling Tile, White, Random Pin and Knife Holes



Homogeneous Material No. 33 – 4” Vinyl Cove Base, Brown



Homogeneous Material No. 34 – Exterior Roof Caulk, Black and White Mix



Homogeneous Material No. 35 – Exterior Window Caulk, Gray



Homogeneous Material No. 36 – Safe Door



*Project Name: General Services Building Switchgear Replacement*  
*Project Number: MIS032.10*  
*DTMB Project Number: 171/22311.SDW*

**DIVISION 26**  
**ELECTRICAL**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 01 specification sections, apply to this section. If differing requirements are identified elsewhere (in these specifications or on drawings or separate instructions), the more stringent requirement shall be met.

1.2 REFERENCES:

- A. Eaton Electrical - Site Electrical Testing & Start-up Guidelines - 2015
- B. Square D Services - Procedures for Startup and Commissioning of Electrical Equipment - May 2001
- C. InterNational Electrical Testing Association (NETA) Standard For Maintenance Testing Specifications - MTS-2011.
- D. NFPA 70 - National Electrical Code
- E. NFPA 70B - Recommended Practice for Electrical Equipment Maintenance

1.3 SUBMITTALS:

- A. Submit under provisions of Section 01300 - Submittals.
- B. Product Data:
  - 1. Submit resumes of technicians performing work
  - 2. Submit corporate safety policy.
  - 3. Submit MSDS sheets as required by Owner.
  - 4. Factory recommended standard for start-up and commissioning of electronic multi-metering devices and current transformers.

PART 2 – SCOPE OF WORK

2.1 NOTE – ITEMS WITH STRIKE-THRU ARE NOT APPLICABLE TO THIS PROJECT.

2.2 ALL TESTING, COMMISSIONING AND START-UP SHALL BE PERFORMED BY THE FIELD ENGINEERING SERVICE BRANCH OF A MAJOR MANUFACTURER OF THE ELECTRICAL EQUIPMENT DESCRIBED IN THIS SECTION.

2.3 15KV AIR (SWITCHES, AIR, MEDIUM-VOLTAGE, METAL-ENCLOSED

- A. Visual and Mechanical Inspection
  - 1. Inspect physical and mechanical condition.
  - 2. Inspect grounding connections.
  - 3. Inspect insulators for evidence of physical damage or contaminated surfaces
  - 4. Inspect surge arrester and/or surge suppression
  - 5. Inspect anchorage, alignment, grounding, and required clearances.
  - 6. Inspect control power transformers. Record nameplate and protective fuse:
    - a. Manufacturer
    - b. Type and size
    - c. Quantity

SECTION 26 01 26  
TESTING OF ELECTRICAL EQUIPMENT

- d. Presence of spares.
  7. Inspect wiring for damaged insulation, broken leads, tightness of connections, proper crimping, and overall general condition
  8. Lubricate padlocks, key interlocks, door handles, latches, hinges etc. Ensure smooth operation.
  9. Test all electrical and mechanical safety interlock systems for correct operation and sequencing.
  10. Verify operation and sequencing of key interlocking systems. Record and report existing interlock sequence as-found and as-left. Record and verify the following
    - a. Key manufacturer of as-found and as-left keys.
    - b. Key number and exchange codes
    - c. As-found and as-left sequencing. Verify as-left sequencing complies with construction drawing notes.
    - d. Attempt to close locked-open devices
    - e. Attempt to open locked-close devices
  11. Clean the unit.
  12. Verify correct blade alignment, blade penetration, travel stops, arc interrupter operation, and mechanical operation.
  13. Verify each fuse holder has adequate mechanical support and contact integrity. Record fuse holder type and catalog number.
  14. Verify fuse sizes and types are in accordance with drawings, short circuit studies, and coordination study. Record fuse link manufacturer, size, type and catalog number.
  15. Verify expulsion-limiting devices are in place on all fuses having expulsion-type elements.
  16. Verify each fuse holder has adequate mechanical support and contact integrity.
  17. Inspect bolted electrical connections for high resistance using a low-resistance ohmmeter
  18. Verify tightness of accessible bolted electrical connections by calibrated torque-wrench method in accordance with:
    - a. Manufacturer's published data or
    - b. Data provided by the reference documents in this section.
    - c. ~~Perform a thermographic survey.~~
  19. Verify that phase-barrier mounting is intact.
  20. Verify correct operation of all indicating and control devices.
  21. Use appropriate lubrication on moving current-carrying parts and on moving and sliding surfaces.
- B. Electrical Tests
1. Perform resistance measurements through bolted connections with a low-resistance ohmmeter
  2. Measure contact resistance across each switchblade assembly.
  3. Perform insulation-resistance tests for one minute on each pole, phase-to-phase and phase-to-ground with the switch closed, and across each open pole with a 2000V megohmmeter.
  4. Measure resistance across the fuse and fuse holder. Calculate fuse holder resistance.
  5. Verify space heater operation (if present).

## 2.4 TRANSFORMERS – SECONDARY UNIT SUBSTATION – DRY-TYPE

- A. Visual and Mechanical Inspection
1. Inspect physical and mechanical condition including evidence of moisture and corona.

SECTION 26 01 26  
TESTING OF ELECTRICAL EQUIPMENT

2. Inspect anchorage, alignment, and grounding.
3. Inspect enclosure. Replace missing bolts.
4. Prior to cleaning the unit, perform as-found tests if required.
5. Clean the unit.
6. Verify control and alarm settings on temperature indicators are operating correctly.
7. Verify cooling fans operate correctly. Clean cooling fans.
8. Verify thermocouple or RTD wires are secured and clear of line conductors
9. Inspect bolted electrical connections for high resistance using one or more of the following methods:
  - a. ~~Use of a low-resistance ohmmeter.~~
  - b. Verify tightness of accessible bolted electrical connections with a calibrated torque-wrench.
10. Record as-left tap connections.
11. Verify the presence (or absence) of surge arresters.

B. Electrical Tests

1. Perform resistance measurements through bolted connections with a low-resistance ohmmeter.
2. Perform insulation-resistance tests winding-to-winding and each winding-to-ground. Apply voltage in accordance with manufacturer's published data. In the absence of manufacturer's published data, use industry recognized standards.
3. Calculate the dielectric absorption or polarization index.
4. Perform turns-ratio tests at all tap positions. Re-test turns ratio on as-left tap position prior to re-energizing the transformer.
5. Verify winding polarities match those shown on the nameplate.
6. Verify the transformer core is solidly grounded.
7. Measure core insulation resistance at 500 volts dc if the core is insulated and if the core ground strap is removable.
8. Perform an excitation-current test on each phase.
9. Measure the resistance of each winding at the designated tap position.
10. Verify correct secondary voltage phase-to-phase and phase-to-neutral after energization and prior to loading.
11. If surge arresters are present, test in accordance with specifications found elsewhere in this document.
12. Utilizing temporary control power, verify cooling fans operate correctly.

2.5 600 VOLT CABLES (CABLES, LOW-VOLTAGE, 600-VOLT MAXIMUM)

A. Visual and Mechanical Inspection

1. Inspect exposed sections of cables for physical damage and evidence of overheating.
2. Inspect bolted electrical connections for high resistance using one or more of the following methods:
  - a. Use of a low-resistance ohmmeter.
  - b. Verify tightness of accessible bolted electrical connections by calibrated torque-wrench.
  - c. ~~Perform a thermographic survey.~~
3. Inspect compression-applied connectors for correct cable match and indentation.
4. Jacket and insulation condition
5. For each feeder from switchboard GSB MDP 4A, note and record cable type, the presence of an equipment grounding conductor, the cable/conduit configuration.
6. Verify the following:
  - a. That conduits and conduit bushings are correctly installed
  - b. Unused openings have been properly closed and secured



SECTION 26 01 26  
TESTING OF ELECTRICAL EQUIPMENT

- c. Tightness of accessible bolted electrical connections by calibrated torque-wrench method in accordance with manufacturers published data.
  - d. Cables are properly routed through current transformers and shields are properly terminated
- B. Electrical Tests
- 1. Record wet and dry-bulb temperatures or relative humidity and temperature
  - 2. Perform resistance measurements through bolted connections with a low-resistance ohmmeter.
  - 3. Perform an insulation-resistance test on each conductor with respect to ground and adjacent conductors with a 1000V megohmmeter.
  - 4. Verify uniform resistance of parallel conductors.

2.6 LOW VOLTAGE SWITCHBOARDS AND SWITCHBOARD ASSEMBLIES

- A. Visual and Mechanical Inspection
- 1. Inspect physical, electrical, and mechanical condition including evidence of shipping damage.
  - 2. Inspect anchorage, alignment, grounding, and required area clearances.
  - 3. Lubricate all padlocks, door handles, latches, hinges etc. Ensure smooth operation.
  - 4. Inspect neutral/ground bonding jumpers for service entrance equipment, where applicable. Ensure neutral/ground bonding jumper is in the switchboard OR service transformer, not both.
  - 5. Verify fuse and/or circuit breaker sizes and types correspond to drawings and coordination study as well as to the circuit breakers' address for microprocessor-communication packages.
  - 6. Verify current and voltage transformer ratios correspond to drawings. Note presence of neutral CT for main circuit breaker and other circuit breakers with ground fault protection. Ensure neutral CT ratio matches phase CTs.
  - 7. Note presence of zero-sequence CT (BYZ). Record current ratio.
  - 8. Inspect bolted electrical connections for high resistance using one or more of the following methods:
    - a. Use of a low-resistance ohmmeter
    - b. Verify tightness of accessible bolted electrical connections by calibrated torque-wrench
  - 9. Confirm correct operation and sequencing of electrical and mechanical interlock systems.
    - a. Verify key interlock system. Record key sequence for primary load break switches and main circuit breaker.:
    - b. Record key number and exchange codes
    - c. Verify and record proper sequencing complies with drawing notes
    - d. Attempt to close locked-open devices
    - e. Attempt to open locked-closed devices
    - f. Make key exchange with devices operated in off-normal positions
  - 10. Use appropriate lubrication on moving current-carrying parts and on moving and sliding surfaces.
  - 11. Verify correct installation and operation of barriers and shutters.
  - 12. Exercise all active components.
  - 13. Inspect mechanical indicating devices for correct operation.
  - 14. Perform visual and mechanical inspection of instrument transformers. Record values.
  - 15. Inspect control power transformers.
    - a. Inspect for physical damage, cracked insulation, broken leads, tightness of connections, defective wiring, and overall general condition.

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TESTING OF ELECTRICAL EQUIPMENT

- b. Verify primary and secondary fuse ratings or circuit breakers match drawings.
- c. Verify correct functioning of drawout disconnecting and grounding contacts and interlocks.
- 16. Perform as-left tests.

B. Electrical Tests

- 1. Perform resistance measurements through bolted electrical connections with a low-resistance ohmmeter.
- 2. Perform insulation-resistance tests for one minute on each bus section, phase-to-phase and phase-to-ground with 1000V megohmmeter.
- 3. Perform insulation-resistance tests on control wiring with respect to ground. The applied potential shall be 500 volts dc for 300-volt rated cable and 1000 volts dc for 600-volt rated cable. Test duration shall be one minute. For units with solid-state components or control devices that cannot tolerate the applied voltage, follow manufacturer's recommendation.
- 4. Perform ground-resistance tests.
- 5. Determine accuracy of all meters and calibrate per manufacturer's commissioning guidelines.
- 6. Ground Fault Protection.
  - a. Perform functional ground fault testing by primary injection on all circuit breakers utilizing neutral CTs for residual protection.
  - b. Furnish small injection test set and inject current on the neutral CT while the circuit breaker is bolted in place. Ramp current to a level sufficient to trip the circuit breaker on the ground fault function.
  - c. This is a functional test. Calibrated ground fault pick-up and delay test are covered under sections addressing circuit breaker testing.
- 7. Control Power Transformers
  - a. Perform insulation-resistance tests. Perform measurements from winding-to-winding and each winding-to-ground.
  - b. Test voltages shall be in accordance with manufacturer's published data.
- 8. Verify operation of switchgear/switchboard heaters and their controller, if applicable.
- 9. Perform system function tests

2.7 MOLDED CASE CIRCUIT BREAKERS (UL489)

A. Visual and Mechanical Inspection

- 1. Record circuit breaker position on report sheet. Report load served based on labels present.
- 2. Inspect physical and mechanical condition. Inspect for damage from shipping
- 3. Inspect anchorage and alignment.
- 4. Clean the unit.
- 5. Operate the circuit breaker to ensure smooth operation.
- 6. Inspect bolted electrical connections for high resistance using one or more of the following methods:
  - a. Use of a low-resistance ohmmeter
  - b. Verify tightness of accessible bolted electrical connections by calibrated torque-wrench
- 7. Inspect operating mechanism, contacts, and arc chutes in unsealed units.
- 8. Perform adjustments for final protective device settings in accordance with coordination study provided by end user.
- 9. Perform as-left tests.

B. Electrical Tests

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1. Perform resistance measurements through bolted connections with a low-resistance ohmmeter.
2. Perform insulation-resistance tests with a 1000V megohmmeter for one minute on each pole, phase-to-phase and phase-to-ground with the circuit breaker closed, and across each open pole.
3. Perform a contact/pole-resistance test.
4. **GROUND FAULT PROTECTION:** All circuit breakers equipped with ground fault protection, regardless of voltage or circuit position, shall be performance tested by a qualified person using a test process of primary current injection on each phase and neutral sensor/CT. Primary current injection testing shall be performed at the circuit breakers with the lowest available pickup value and minimum of 0.2 second (Flat Response) delay. Ground fault test results shall be submitted to the Engineer prior to final energization of equipment.
5. **ARC ENERGY REDUCTION - NEC 240.87:** Perform arc flash mitigation tests for all circuit breakers 1200A or greater regardless of voltage or circuit position. Perform tests per these specifications AND other requirements as determined by the local AHJ. A written record of this testing shall be available immediately to the Engineer and the AHJ on demand. The testing shall be recorded on the manufacturer's test forms with the testing technician's name, office and mobile phone number printed in a legible manner. A copy of the test record(s) shall be laminated and placed in a prominent place in the switchboard vault.
  - a. Record results of primary injection testing for ground fault protection.
  - b. Perform arc flash mitigation by secondary current injection at the settings assigned to the circuit breaker by the Engineer.
  - c. Perform other tests as required by the local AHJ.
6. **Additional testing for electronic trip units:**
  - a. Determine long-time pickup and delay by secondary current injection.
  - b. Determine short-time pickup and delay by secondary current injection.
  - c. Determine instantaneous pickup current by secondary current injection.
  - d. Perform minimum pickup voltage test on shunt trip and close coils (where applicable).
  - e. Verify correct operation of auxiliary features such as trip and pickup indicators, zone interlocking, electrical close and trip operation, trip-free, antipump function, and trip unit battery condition. Furnish replacement batteries as required.
  - f. Reset all trip logs and indicators.
  - g. Verify operation of charging mechanism (if applicable).

C. Execution

1. All test results shall be furnished to the Engineer for approval. For new construction, submit approved test results with O&M manuals.

2.8 CIRCUIT BREAKERS – AIR (UL1066)

A. Visual and Mechanical Inspection

1. Record circuit breaker cell position. Record name of load served based on cell label(s).
2. Inspect physical and mechanical condition including but not limited to:
  - a. Finger clusters/Bolt-in hardware
  - b. Secondary contacts
  - c. Current sensors and/or CTs
  - d. Neutral CT
  - e. Ground Contact
  - f. Cell switches (Door Interlocks, Kirk Key Interlocks etc.)

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3. Inspect anchorage, alignment, and grounding.
  4. Verify all maintenance devices are available for servicing and operating the breaker.
  5. Prior to cleaning the unit, perform as-found tests, if required.
  6. Clean the unit.
  7. Inspect arc chutes.
  8. Inspect moving and stationary contacts for condition, wear, and alignment.
  9. Verify primary and secondary contact wipe and other dimensions vital to satisfactory operation of the breaker are correct.
  10. Perform all mechanical operator and contact alignment tests on both the breaker and its operating mechanism in accordance with manufacturer's published data.
  11. Inspect bolted electrical connections for high resistance using one or more of the following methods:
    - a. ~~Use of a low-resistance ohmmeter.~~
    - b. Verify tightness of accessible bolted electrical connections with calibrated torque-wrench.
  12. Verify cell fit and element alignment.
  13. Verify bolt-in anchors.
  14. Use appropriate lubrication on moving current-carrying parts and on moving and sliding surfaces.
  15. Verify manual operation of the circuit breaker in the switchboard cell
  16. Record as-found and as-left operation counter readings if applicable.
- B. Electrical Tests
1. Perform resistance measurements through bolted connections with a low-resistance ohmmeter.
  2. Perform insulation-resistance tests with a 1000V megohmmeter for one minute on each pole, phase-to-phase and phase-to-ground with the circuit breaker closed, and across each open pole.
  3. Perform a contact/pole-resistance test.
  4. GROUND FAULT PROTECTION: All circuit breakers equipped with ground fault protection, regardless of voltage or circuit position, shall be performance tested by a qualified person using a test process of primary current injection on each phase and neutral sensor/CT. Primary current injection testing shall be performed at the circuit breakers with the lowest available pickup value and minimum of 0.2 second (Flat Response) delay. Ground fault test results shall be submitted to the Engineer prior to final energization of equipment.
  5. ARC ENERGY REDUCTION - NEC 240.87: Perform arc flash mitigation tests for all circuit breakers 1200A or greater regardless of voltage or circuit position. Perform tests per these specifications AND other requirements as determined by the local AHJ. A written record of this testing shall be available immediately to the Engineer and the AHJ on demand. The testing shall be recorded on the manufacturer's test forms with the testing technician's name, office and mobile phone number printed legibly. A copy of the test record(s) shall be laminated and prominently placed in the switchboard vault.
    - a. Record results of primary injection testing for ground fault protection.
    - b. Perform arc flash mitigation by secondary current injection at the settings assigned to the circuit breaker by the Engineer.
    - c. Perform other tests as required by the local AHJ.
  6. Additional testing for electronic trip units:
    - a. Determine long-time pickup and delay. by secondary current injection.
    - b. Determine short-time pickup and delay. by secondary current injection.
    - c. Determine instantaneous pickup current by secondary current injection.
    - d. Perform minimum pickup voltage test on shunt trip and close coils (where applicable).

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- C. Execution (Add as required)
  - 1. Contractor shall furnish standby power required for testing.
  - 2. Contractor shall set up primary current injection test set in a location near the switchgear in a location designated by the Owner.
  - 3. All test results shall be furnished to the Engineer for approval. For new construction, submit approved test results with O&M manuals.

2.9 SURGE ARRESTERS, MEDIUM- AND HIGH-VOLTAGE SURGE PROTECTION DEVICES

- A. Visual and Mechanical Inspection
  - 1. Inspect physical and mechanical condition.
  - 2. Inspect anchorage, alignment, and grounding.
  - 3. Prior to cleaning the unit, perform as-found tests.
  - 4. Clean the unit.
  - 5. Inspect bolted electrical connections for high resistance using one or more of the following methods:
    - a. Use of a low-resistance ohmmeter.
    - b. Verify tightness of accessible bolted electrical connections by calibrated torque-wrench method in accordance with manufacturer's published data
  - 6. Verify the ground lead on each device is individually attached to a ground bus or ground electrode.
- B. Electrical Tests
  - 1. Perform insulation-resistance tests from phase terminal(s) to case for one minute. Test voltage and minimum resistance shall be in accordance with manufacturer's published data.
  - 2. Test the grounding connection with a low-resistance ohmmeter.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 specification sections apply to this section. If differing requirements are identified elsewhere in these specifications or on drawings or separate instructions, the more stringent requirement shall be met.

1.2 SUMMARY

- A. Section Includes:
1. Raceway systems
  2. Wire, cables and connectors
  3. Wiring devices
  4. Motor and circuit disconnects
  5. Fuses
  6. Transformers
- B. All components specified in this section shall be listed or labeled as defined by the National Electrical Code 2023 edition. For practical purposes, the most common listing agencies are:
1. Underwriters Laboratory (UL)
  2. The Canadian Standards Association (CSA)
  3. ETL - Intertek

1.3 SUBMITTALS

- A. Submit under provisions of Division 01300 - Submittals.
- B. Product Data:
1. Submit manufacturer's cut sheets for disconnects, fuses, wire, conduit, and transformers.
  2. Submit data sheets with printed installation instructions.
  3. Submit data for custom enclosures.
- C. Shop Drawings:
1. Show enclosure dimensions, name plate nomenclature, electrical ratings, and thermal unit schedule.
  2. Wiring diagrams and schematics.
  3. Approval of equipment supplied in this Section is contingent upon verification of available fault current from State Secondary Complex by the Contractor. **Notify Engineer if available fault current is higher than specified equipment.**
- D. Operations and Maintenance (O&M) Data: Maintenance data for materials and products for inclusion in Operating and Maintenance Manual.

1.4 QUALITY ASSURANCE

- A. Items provided under this section shall be listed or labeled by UL or other Nationally Recognized Testing Laboratory (NRTL).

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- B. Term "NRTL" shall be as defined in OSHA Regulation 1910.7.
- C. Terms "listed" and "labeled" shall be as defined in the National Electrical Code, Article 100.
- D. Regulatory Requirements:
  - 1. National Electrical Manufacturers Association (NEMA): Design features, test standards, and operating guidelines of electrical equipment shall meet minimum requirements cited in specified standard.
  - 2. National Electrical Code (NEC): Components and installation shall comply with National Fire Protection Association, NFPA 70 – 2023 and Construction Code Rules Part 8 also known as Electrical Code Rules effective March 12, 2024.

PART 2 - PRODUCTS

2.1 RACEWAY SYSTEMS

- A. Electrical Metallic Tubing (EMT), Intermediate Metal Conduit (IMC), Rigid Metallic Conduit (RMC): Use manufacturer's standard lengths and sizes. Protect inside and outside by hot-dipped galvanized or electro-galvanized coating.
  - 1. EMT – NEC 2023 Article 358
  - 2. IMC – NEC 2023 Article 342
  - 3. RMC – NEC 2023 Article 344
  - 4. Manufacturers:
    - a. Allied Steel
    - b. Columbia
    - c. Omega
    - d. Wheatland.
- B. Plastic Conduit (PVC): Schedule 40 or 80, heavy wall rigid plastic (PVC) conduit manufactured to NEMA TC-2 standards, rated for 90 degree cable, UL listed, and as required by NEC. Use standard lengths and sizes.
  - 1. Manufacturers: Carlon, Certainteed, or Genova.
  - 2. PVC Coated Galvanized Rigid Steel Conduit (PVC-GRS): Galvanized rigid steel conduit with full weight, 40 mil thick, PVC coating bonded to galvanized metal, and meeting requirements of NEMA RN-1. Manufacturers:
    - a. Perma-Coat Plastics Inc.
    - b. Robroy Industries.
- C. Flexible Metal Conduit (FMC):
  - 1. Reference NEC 2023 Article 348.
  - 2. Galvanized flexible steel
  - 3. 3/4 inch minimum size, standard conduit lengths.
  - 4. Manufacturers:
    - a. American Flexible Conduit
    - b. Anaconda
    - c. Flexsteel
    - d. Triangle PWC, Inc.
- D. Liquidtight Flexible Metal Conduit (LFMC):
  - 1. Reference NEC 2023 Article 350
  - 2. Galvanized flexible steel with heavy wall PVC jacket,
  - 3. 3/4 inch minimum size, standard conduit lengths.
  - 4. Manufacturers:

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- a. American Flexible Conduit
  - b. Anaconda
  - c. Flex-Guard, Inc.
  - d. Liquatite
  - e. O-Z Gedney.
- E. Fittings: Steel or malleable iron, zinc galvanized, or cadmium plated. Do not use aluminum or die cast fitting. Do not use set screw or indentor type fittings.
- 1. Manufacturers:
    - a. American Electric
    - b. Appleton Electric Company
    - c. O-Z Gedney
    - d. Steel City.
  - 2. EMT, IMC, or RMC Connectors and Couplings:
    - a. EMT: Gland compression type
    - b. IMC: Threaded
    - c. RMC: Threaded
  - 3. Flexible Metal Conduit (FMC) Connectors: Same type as FMC manufacturer. Connectors per manufacturer's recommendation.
  - 4. Liquidtight Flexible Metal Conduit (LFMC) Connectors: Same type as LFMC manufacturer. Connectors per manufacturer's recommendation.
  - 5. Expansion Joints:
    - a. Conduit expansion fittings complete with copper bonding jumper, Crouse-Hinds Type XJ.
    - b. Conduit expansion/deflection fittings complete with copper bonding jumper, Crouse-Hinds Type XD.
  - 6. Seals: Wall entrance, Appleton Type FSK or FSC.
  - 7. Drain Fittings:
    - a. Automatic Drain Breather: Explosion proof, safe for Class I, Groups C and D. Capable of passing minimum 25cc water per minute and minimum 0.05 cu ft per min. at atmospheric pressure.
    - b. Condensate Drains: Conduit outlet body Type T, threaded, galvanized plug with 3/16 inch drilled hole through plug.
  - 8. Hazardous Areas: Explosion proof,
    - a. Horizontal seal fitting, Crouse-Hinds Type EYS
    - b. Vertical seal fitting, Crouse-Hinds Type EYD with drain plug.
- F. Multi-Outlet Plug Mold Raceway System: Surface mounted multi outlet assembly with metal base, hole-cut cover section, and grounded receptacles with factory wired harness. Base section shall have knockouts for feeding the system.
- 1. Receptacles: Duplex, 20-amp, 125 v, grounded, No. 12 AWG wire. Wiring shall be single circuit, 3-wire unless noted otherwise
  - 2. Base and Cover: 3/4 inch high by 1-9/32-inch-wide steel capable of being overpainted in the field and including all accessories for complete system.
  - 3. Manufacturers:
    - a. American Electric
    - b. Hubbell
    - c. Steel City
    - d. Wiremold.
- G. Boxes:
- 1. Interior Outlet Boxes:



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- a. Wall Outlets: Flush mounted, square corner, galvanized masonry type with internally mounted ears or 4 in. sq. with raised cover having square corners and internally mounted ears.
  - b. Ceiling Lighting Fixture Outlet Boxes: Flush mounted, 4 in. sq. Coordinate type and color with Michigan Lighting Systems - West. See Section 26 05 00.
  - c. Manufacturers:
    - 1) American Electric
    - 2) Appleton Electric Company
    - 3) Steel City.
- H. Weatherproof Outlet Boxes: Surface mounted 4-in. sq. with raised device cover, cast galvanized box with threaded hub. Covers shall be lockable. Provide cast galvanized units in hazardous areas approved for classification of area. Red Dot Code Keeper or equal.
- 1. Manufacturers:
    - a. Thomas & Betts
    - b. Crouse-Hinds
    - c. O-Z Gedney
    - d. Hubbell
- I. Junction and Pull Boxes: Fabricate from code gauge galvanized steel, with covers held in place with corrosion resistant machine screws. Furnish with welded seams where applicable, and equip with corrosion resistant nuts, bolts, screws, and washers. Size as required by code for quantity of conduit and conductors entering and leaving box.
- 1. Furnish with rust-inhibiting primer and color ANSI Grey 61.
  - 2. Furnish with tamper-proof screws.
  - 3. Manufacturers:
    - a. Electromate
    - b. Hoffman Engineering Company
    - c. Keystone Columbia, Inc.
    - d. The field service group of a major manufacturer of electrical power distribution equipment.
- J. Fire-Rated Through-Fittings: Provide floor fittings requiring penetration of floor slabs as listed by UL and having UL fire rating of 4 hours.
- 1. Junction Boxes in Ceiling Space below Floor: Suitable to accommodate separate services of power and communications and code approved for use in plenum space when applicable.
  - 2. Raceways through Floor: Provide separation of power and low voltage as follows:
    - a. For 2-inch Core Holes:
      - 1) 3/4-inch raceway for communication.
      - 2) 3/4-inch raceway for power.
      - 3) Heat Transfer: 0.11 sq. in. of copper cross section maximum for both.
    - b. For 3-inch Core Holes:
      - 1) 1-1/4-inch raceway for communication.
      - 2) 1/2-inch raceway for power.
      - 3) Heat Transfer: 0.16 sq. in. of copper cross section maximum for both.
  - 3. Abandonment Plates: Furnish sufficient quantity of plates directly to Owner suitable for maintaining same UL listed fire rating. Plates shall be packaged and labeled for easy identification at time of placement.
  - 4. Manufacturers:
    - a. Crouse-Hinds

b. Hubbell Electric Co.

## 2.2 WIRES, CABLES, AND CONNECTORS

- A. Wires and Cable: 600 v copper conductors per ASTM B258 with color coded insulation per ASTM D1351 for low voltage secondary feeders and branch circuits as required by NEC.
1. Type THWN-2 Stranded: Single conductor, 90°C, No.12 AWG minimum for branch circuits. Feeder conductors size No. 8 AWG or less.
  2. Type XHHW Stranded: Single conductor for branch circuits, feeders, and service conductors larger than No. 8 AWG.
  3. Provide grounding conductor when run with circuit conductors with same insulation as circuit conductors.
  4. Type THWN-2 Stranded: Single conductor No. 12 AWG minimum for 120 v control wiring and No. 14 AWG minimum for graphic indication, non-shielded instrumentation and other control wiring operating at less than 120 v unless otherwise noted on drawings.
  5. Furnish and install high density polyethylene jacketed multi-wire cable assemblies in underground conduit or duct.
    - a. Polyethylene Insulated for Instrumentation: Tinned copper (19 by 27) stranding, No. 16 AWG, two conductors cabled with aluminum polyester electrostatic shielding, stranded tinned copper drain wire, and chrome vinyl outer jacket for interference sensitive instrumentation wiring. Additional high density polyethylene jacket on cables installed below ground and inside duct encasements.
- B. Joints, Taps, and Splices:
1. Joints, Taps, and Splices in Conductors No. 10 AWG and Smaller: UL listed compression spring type solderless connectors with plastic cover.
  2. Joints, Taps, and Splices in Conductors No. 8 AWG and Larger: Solderless two or four bolt compression type connectors of type that will not loosen under vibration or normal strains.
  3. Terminations: Compression-type crimp lugs.
  4. Manufacturers:
    - a. American Electric
    - b. Blackburn
    - c. Burndy
    - d. Thomas & Betts.

## 2.3 WIRING DEVICES

- A. Manufacturers:
1. Appleton Electric
  2. Arrow-Hart
  3. Crouse-Hinds
  4. Hubbell Wiring Device Division
- B. Fabricated Devices: Factory fabricated, specification grade wiring devices in type, color, and electrical rating for service indicated. Ivory color or other color as selected by Owner. Devices for the same project shall be of one manufacturer. See Symbol Schedule for identification of device type.

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- C. Switches:
1. General Use Lighting Switches: See Specification Section 26 50 00
  2. 20 amp toggle, equivalent to Hubbell No. 1221-I series.
  3. Equipment Switches: Switches controlling equipment, operation of which is not evident from switch position, shall include flush neon pilot light in conjunction with proper switch. Each switch shall be complete with engraved plate to identify equipment being controlled and branch panelboard circuit of origin. White letters on black, 1/8 inch high minimum.
- D. Receptacles:
1. General Use Duplex Receptacles: NEMA No. 5-20R, grounding type, 20-amp equivalent to Hubbell No. 5362 Specification Grade.
  2. Special Purpose Receptacles: As shown on drawings or Schedules. Receptacles supplied from standby or emergency systems shall have a red face.
- E. Interlocked Receptacle Switches:
1. Receptacle with 3 poles, 60 ampere, 600 VAC rating 3 wire. One pole grounded to ground conductor and receptacle factory sealed. Receptacle shall be interlocked with standard safety disconnect switch, 3 pole, 3 wire 60A, and 600 VAC rating.
  2. Manufacturers:
    - a. Hubbell
    - b. Crouse-Hinds.
    - c. Mennekes
    - d. Eaton Electrical
  3. Receptacle switch shall be rain-tight surface mount equipped with a Padlockable spring door cap. Manufacturers:
    - a. Eaton Electrical
    - b. Mennekes
    - c. Hubbell
    - d. Crouse Hinds
- F. Ground-Fault Circuit Interrupter Receptacles (GFCI): Shallow depth NEMA 5-20R configuration with noise suppression and line and load terminal screws, feed through. Standard duplex wall plates shall fit.
1. Unit shall be 120 VAC., 20-amp, UL Class A and shall meet requirements of UL 943 ground-fault circuit interrupters.
  2. Units shall at minimum meet requirements of NEC 2023 Article 210.8 and all other NEC 2023 requirements.
- G. Wiring Device Plates and Covers:
1. Wall plates for wiring devices with ganging and cut outs as indicated, provided with metal screws for securing plates to devices, screw heads colored to match finish of plate.
  2. Plates for Flush Mounted Devices: Equal to Sierra P line specifications Grade Type No. 430 brushed stainless steel or color as selected by (Engineer) (Owner).
  3. Telephone outlet configuration to match telephone outlet jack or cable.
  4. Device plates for surface mounted Type FS or FD boxes shall be Type FSK galvanized steel.
  5. Device plates for surface mounted, 4 in. sq. boxes shall be 1/2 inch raised galvanized steel covers.

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6. Weatherproof plates and covers for exterior devices or devices in damp locations to be galvanized gray cast malleable with gasketed lift cover plate as shown on drawings.
  
- H. Explosion-proof Devices: Wiring devices for use in hazardous areas shall be explosion proof and approved for Class I, Division 1, Group D areas.
  1. Receptacles: Appleton No. EFS-B175-2023M, Crouse-Hinds No. ENR-21201, or other approved equivalent.
  2. Plugs: Furnish one plug for each receptacle and match receptacles.
  3. Switches: Appleton EFS Series, Crouse-Hinds EDS, or other approved equivalent.

## 2.4 MOTOR STARTERS

- A. Manufacturers:
  1. Allen-Bradley
  2. Eaton Electrical
  3. Siemens
  4. ABB
- 5.
- B. Manual Starters: Minimum short circuit withstand rating in conjunction with motor circuit protective device shall be 10,000 symmetrical amps or as indicated on drawings.
  1. Construction: Quick make and break toggle action with double break silver alloy contacts per NEMA standards for size and HP rating. One piece melting alloy type thermal overload units. Starter shall remain inoperative unless thermal unit is in position.
  2. Include pilot light and provision for locking with padlock.
- C. Magnetic Starters: Minimum short circuit withstand rating in conjunction with motor circuit protective device shall be 65,000 symmetrical amps or as indicated on drawings.
  1. Construction: Unit shall be minimum NEMA Size 1 with straight through wiring with molded coil and shall be mounted in vertical position, gravity dropout with double break silver alloy contacts per NEMA standards for size and HP rating. Contact and/or coil replacement shall be done without removing the starter from enclosure or power wiring from starter.
  2. Overload Relay: One piece melting alloy type thermal overload units. Starter shall remain inoperative unless thermal unit is in position. One melting alloy type overload relay per phase, manually reset. Thermal units shall be interchangeable and overload relay shall have replaceable circuit contacts.
    - a. Overload relays shall have the capability to trip at 6 times LRC in 20 seconds.
    - b. Overload relays for submersible pumps and hermetically sealed motors shall have capability to trip 6 times LRC in 3 to 5 seconds.
- D. Combination Starters: Starters shall be fusible type, 3-pole, 3-phase NEMA size as indicated with three melting alloy overload relays and (HAND-OFF-AUTO) selector switch.
- E. Control Circuits: Mount control transformer in starter enclosure with fuses on one secondary line and one secondary line grounded. Voltage shall not exceed 120v. Transformers shall be sized for device and accessories connected thereto with a minimum of 25% extra capacity.

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- F. Controls: Mount reset button in enclosure cover. Mount heavy-duty, oil-tight green push button to test lights in enclosure cover if indicated. Mount heavy-duty, oil-tight pushbuttons and selector switches in enclosure cover if indicated.
- G. Undervoltage Phase-Failure Time Delay Restart Relays: Furnish solid state sensing circuit with isolated output contacts for hard wire connection and with adjustable under-voltage setting.
  - 1. Provide in starter enclosures for NEMA Size 1 units and larger.
  - 2. Delay initial motor start.
  - 3. Delay motor restart due to starter dropout caused by under-voltage or by starter coil circuit interruption for maintained control circuits.
  - 4. Relay shall be adjustable on delay from 0.15-second to 30 seconds set at 10.0 seconds.
  - 5. Connect control relay in motor coil circuit.
  - 6. Coordinate control relay selection with motor starter to cause motor starter to drop out at voltage slightly higher than dropout voltage of starter and have dropout time slightly faster than motor starter to ensure that if motor starter drops out, then relay will drop out.

2.5 MOTOR AND CIRCUIT DISCONNECTS

- A. Manufacturers:
  - 1. Allen-Bradley
  - 2. Eaton Electrical
  - 3. ABB
  - 4. Siemens.
- B. Enclosed Circuit Breaker Construction: Circuit breaker shall have dual cover interlock and external trip indication. Include provisions for control circuit interlock and locking provisions for padlock in OFF position. Handle shall be attached to box, not to cover, and handle position shall indicate ON, OFF, or TRIPPED. Also include provisions for insulated neutral.
- C. Permanent Trip Circuit Breakers: Permanent trip breakers shall have thermal and magnetic protection. Magnetic protection shall be only in combination with motor starters and motor circuit protectors (MCP). Breakers shall be bolt-on type with quick make and break toggle action and shall have single magnetic trip adjustment with push-to-trip test button. Breaker shall have single-handle common trip, 2-and 3-poles. Handle ties are not acceptable. Handle position indicator shall show ON, OFF, and TRIPPED, and shall be centered. Unit shall be UL listed for type of wire specified and for integrated equipment short circuit rating.
- D. Up to 240 v: 65,000 RMS symmetrical amp minimum.
- E. Up to 480 v: 65,000 RMS symmetrical amp minimum.
- F. Safety Switches:
  - 1. NEMA heavy duty Type HD, with dual cover interlock, visible blades, provisions for control circuit interlock, pin type hinges, and tin-plated current carrying parts. Switch shall have quick make and break operator mechanism with handle attached to box and not to cover. Handle position indicator shall show ON in up position and OFF in down position. Include safety lockout padlock provision for up to 3 padlocks in OFF position. Unit shall have UL listed lugs for type and size of wire specified and adjustable spring reinforced fuse clips for Class R and Class J fuses. UL listed

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short circuit rating 200,000 RMS amp with Class R and Class J fuses. Include provisions for insulated neutral.

- G. Enclosures:
1. Indoor: NEMA 12 code gauge steel with rust inhibitive primer and baked enamel finish.
  2. Outdoor or designated "WP" on Drawings: NEMA 3R code gauge, zinc coated steel with baked enamel finish.
  3. As otherwise noted.

## 2.6 FUSES

- A. Manufacturers:
1. Bussmann
  2. Gould Shawmut
  3. Littelfuse.
- B. 250 v Fuses: Class RK 1, one-end rejection or to fit mountings specified, 1/10 to 600 amps, 200,000 amp interrupting rating.
- C. Bussmann Low-Peak. LPN-R, dual element, time delay with short circuit protection for motor, transformer, welder, feeder, and main service protection.
- D. 600 v Fuses:
1. Class RK 5 or LPJ, one-end rejection or to fit mountings specified, 1/10 to 600 amps, 200,000 amp interrupting rating. Bussmann Low-Peak, LPS-R, dual element, time delay with short circuit protection for motor, transformer, welder, feeder, and main service protection.
  2. Class CC, fast acting, single element, 1/10 to 30 amps, 200,000 amp interrupting rating. Bussmann Limitron KTK-R, UL listed for motor control circuits, lighting ballasts, control transformers, and street lighting fixtures.
  3. Class L, bolt-in type, 601 to 6000 amps, 200,000 amp interrupting rating. Bussmann Hi-Cap, KRP-C, time delay for overload and short circuit protection for motor, transformer, feeder, and main service protection.
- E. Spare Fuses and Cabinet: 10%, minimum of 3, of each type and rating of installed fuses.
1. The cabinet shall be wall mounted, gray baked enamel, 18-ga. minimum steel unit with full-length, recessed piano-hinged door with key coded cam lock and pull. Provide for orderly storage of spare fuses of this project plus 15% spare capacity minimum. Door shall be stenciled in 1-1/2-inch-high letters indicating "Spare Fuses."

## 2.7 CIRCUIT BREAKERS

- A. See Sections 26 24 13 - Switchboards and 26 24 16 - Panelboards

## 2.8 TRANSFORMERS

- A. Transformers shall be dry type, air cooled, quiet type for installing in areas of low ambient noise levels and complying with UL 506. Maximum sound levels shall not exceed NEMA standards. kVA rating shall be as indicated on drawings or on Schedules. Cabinets shall be phosphatized sheet steel having one prime coat and two finish coats of baked enamel.

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Wall mounted units sized through 75 kVA shall have wall mounting brackets. Metal name plates shall show manufacturer's name, serial number, type, class, voltage, frequency, and internal wiring diagram.

- B. Transformers shall have copper windings with high grade, non-aging cores with sheet silicone laminations having core plating insulation on both sides of each lamination. Terminal boards shall have two 2-1/2% taps above and below nominal voltage rating with not less than 10% overload capacity for intermittent operation.
- C. Insulation:
  - 1. Below 30 kVa: Class F or better having 115°C rise, average maximum over 40°C ambient temperature.
  - 2. 30 kVa and Above: Class H or better having 150°C rise, average maximum over 40°C ambient temperature.
- D. Manufacturers:
  - 1. Eaton Electrical
  - 2. ABB
  - 3. Siemens
  - 4. Hammond Power Solutions

PART 3 - EXECUTION

3.01 GENERAL

- A. Install products in accordance with NEC, manufacturer's instructions, applicable standards, and recognized industry practices to ensure products serve intended function.
- B. Installer Qualifications: Engage an experienced installer for the installation and application of incidental work such as joint sealers, access panels, and doors.
- C. Contractor shall furnish all premium time required by the owner to minimize interruption to the facility's operation.

3.02 EXAMINATION

- A. Examine substrates, areas, and conditions with installer present for compliance with requirements for installation tolerances and other conditions affecting installation and application of joint sealers, access panels, or doors. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Prior to demolition, measure and record phase rotation at all major points in the electrical system. Measure phase rotation for all rotating machinery in excess of 1HP.

3.03 SELECTIVE ELECTRICAL DEMOLITION

- A. General: Demolish, remove, demount, and disconnect abandoned electrical materials and equipment indicated to be removed and not indicated to be salvaged or saved.
- B. Salvaged Materials and Equipment: Remove, demount, and disconnect existing electrical materials and equipment indicated to be removed and salvaged. Deliver materials and equipment to the location designated for storage.

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- C. Disposal and Cleanup: Remove from the site and legally dispose of demolished materials and equipment not intended to be salvaged and reused.
- D. Listing of Electrical Materials and Equipment: Demolish, remove, demount, and disconnect the following items:
  - 1. Inactive and Obsolete Raceway Systems, Controls, and Fixtures:
    - a. Raceways embedded in floors, walls, and ceilings may remain if such materials do not interfere with new construction. Remove materials above accessible ceilings.
  - 2. Perform cutting and patching required for demolition in accordance with Appendix III - Special Project Procedures.

3.04 INSTALLING RACEWAY SYSTEMS

- A. Existing conduit may be re-used for power to lighting and luminaires. See section 26 05 00.
- B. Complete conduit installation prior to installing cables.
- C. Use 3/4 inch minimum size unless otherwise noted, except conduit runs to room light switches may be 1/2-inch.
- D. Use rigid galvanized steel conduit for general wiring unless specifically indicated otherwise on drawings or specifications.
- E. Install rigid galvanized conduit when encased in concrete.
- F. Provide watertight conduit system where installed in wet places, underground, or where cable is buried in masonry or concrete.
  - 1. Use threaded hubs when entering the top of enclosures.
  - 2. Use sealing type locknuts when entering the sides or bottom of enclosures.
- G. EMT may be used for branch circuit wiring only in trade size through 1 inch where it can be concealed in hollow spaces of walls, above suspended ceilings, or exposed on interior ceilings and walls in nonhazardous, noncorrosive dry areas.
- H. EMT conduit may be used for feeders in trade sizes up to 4 inches.
- I. Use rigid galvanized steel conduit for sizes 2 inches and larger where required by code.
- J. Conduit shall be run concealed except exposed surface conduit may be installed where noted on drawings or where concealment is found to be impractical or impossible, and only with approval of Engineer.
- K. Conduit and raceways shall be continuous from outlet to outlet and from outlets to cabinets, junction boxes, or pull boxes.
- L. Enter and secure to enclosures and boxes ensuring electrical continuity from point of service to outlets.
- M. Conduit runs extending through areas of different temperature or atmospheric conditions or partly indoors and partly outdoors shall be sealed, drained, and installed in manner



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preventing drainage of condensed or entrapped moisture into cabinets, motors, or equipment enclosures.

- N. Run conduit within concrete structures parallel with each other and spaced on center of at least three times conduit trade diameter with minimum 6 inches of concrete cover. Conduits over 1 inch may not be installed in slab without Engineer's approval.
- O. Route conduit runs above suspended acoustical ceilings not interfering with ceiling panel removal.
- P. Secure conduit in-place with not less than one malleable corrosion-proof alloy strap or hanger per 10 feet of conduit. Do not use perforated strapping.
- Q. Connections to Motors and Equipment Subject to Vibration:
  - 1. Flexible steel conduit not over 3 feet long or where exposed in mechanical and utility areas and not subjected to moisture, dirt, and fumes.
  - 2. Liquid tight flexible conduit not over 3 feet long where exposed in finished areas or where subject to moisture, dirt, fumes, oil, corrosive atmosphere, exposed, or concealed with connectors to ensure liquid tight permanently grounded connection. Locate where least subject to physical abuse.
- R. Use double lock nuts and insulated bushings with threads fully engaged.
- S. Connectors at fixture bodies and boxes shall be rigidly secured with galvanized lock nut and bushing.
- T. Use explosion proof fittings and seals in hazardous areas in accordance with NEC.
- U. Cap conduit after installation to prevent entry of debris.
- V. Install conduit expansion fittings complete with bonding jumper in following locations.
  - 1. Conduit runs crossing structural expansion joint.
  - 2. Conduit runs attached to two separate structures.
  - 3. Conduit runs where movement perpendicular to axis of conduit may be encountered.
- W. Install 4-6 foot flexible steel conduit drops from independent junction box mounted above ceiling and accessible from below ceiling to recessed ceiling mounted equipment. Allow for positioning of equipment to fit ceiling panel sizes.
- X. Multi-Outlet Raceway System:
  - 1. Mount to surface with approved support clips.
  - 2. Do not pinch wires.
  - 3. Remove metal burrs and sharp edges.
  - 4. Install in accordance with manufacturer's recommendations.

### 3.05 INSTALLING BOXES

- A. Install knockout closures to cap unused knockout holes where blanks have been removed.
- B. Locate boxes to ensure accessibility of electrical wiring.

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- C. Secure boxes rigidly to surface or solidly embed boxes in concrete or masonry. Do not support from conduit.
- D. Do not burn holes; use knockout punches or saw.
- E. Provide outlet box accessories as required for each installation such as mounting brackets, fixture studs, cable clamps, and metal straps for supporting outlet boxes compatible with outlet boxes being used and meeting requirements of individual wiring situations.
- F. Location of outlets and equipment shown on drawings is approximate. Verify exact location.
- G. Minor modification in location of outlets and equipment is considered incidental up to distance of 10 feet with no additional compensation, provided notification of modification is given prior to roughing in of outlet.
- H. Flush outlets shall have edges of gypsum board or plaster flush with finished wall or ceiling surfaces so that plates can be drawn tightly to wall or ceiling.
- I. Mounting height as follows unless otherwise shown on drawings:
  - 1. Switches: 48 inches above floor.
  - 2. AC Receptacles and Telephone Outlets: 15 inches above floor or 6 inches above counters, counter backsplashes, and baseboards radiators in finished areas; 48 inches above floor in unfinished areas.
  - 3. Wall Bracket Lighting Fixtures: 8 inches above mirrors or 6'-6" above floor.
  - 4. Pushbuttons: 48 inches above floor.
  - 5. Motor Starters and Disconnect Switches: 60 inches above floor.
  - 6. Thermostats: 60 inches above floor.
  - 7. Bells and Horns: 8'-0" above floor.
- J. Do not install boxes back to back or through wall. Offset outlet boxes on opposite sides of wall minimum 12 inches.
- K. Where emergency switches occur adjacent to normal light switches, install in separate boxes in accordance with NEC and device plate cover color coding separation.
- L. Lighting Fixture Outlet Boxes:
  - 1. Securely mount with approved type bar hangers spanning structural members to support weight of fixture.
  - 2. Do not support from conduit.
  - 3. Equip with 3/8-inch fixture stud and tapped fixture ears.
- M. Fire Rated Through Fittings: Install in accordance with manufacturer's recommendations. Spacing and location shall be as noted on drawings.

3.06 INSTALLING WIRE AND CABLE

- A. Run wire and cable in conduit unless otherwise indicated on drawings.
- B. Use standard colors on branch circuits.
- C. Each tap, joint, or splice in conductors No. 8 AWG and larger shall be taped with 2 half-lap layers of vinyl plastic electrical tape and finish wrap of color-coded tape where required by code.

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- D. Run ground wire with power circuits; conduit shall not serve as grounding path.
- E. Furnish equipment grounding conductors to all distribution equipment located in the main switchboard electrical vault.
- F. Provide separate conduit systems for following:
  - 1. Exit lights.
  - 2. Line voltage control.
  - 3. Low voltage control.
  - 4. As required by NEC.
- G. Where power cables and instrument/signal cables enter and pass through same manhole, handhole, or distribution box, steel barrier, or steel conduit separation shall be maintained to avoid magnetic interaction between power cables and instrumentation conductors. In manholes and handholes, provide Type C conduit outlet body with 3/16-inch drainage holes drilled in bottom.
- H. Run instrumentation cable into control cabinets or MCC only if terminated therein.
- I. Terminate control, instrumentation, and communication cables on terminal strips in separate terminal cabinets located near conduit entrances of buildings or as shown on drawings.
- J. Color Coding: Conductors for lighting and power wiring as indicated below.

<b>Phase</b>	<b>208/120v</b>	<b>480/277v</b>
A	Black	Brown
B	Red	Orange
C	Blue	Yellow
Travelers	Pink	Purple
Neutral	White	Gray
Ground	Green	Green
Intrinsically Safe System	Light Blue	Light Blue

**3.07 INSTALLING JOINTS, TAPS, AND SPLICES**

- A. Where preinsulated spring connectors are used for motor and equipment connections, tape connector to wire to prevent loosening under vibration.
- B. Each tap, joint or splice in conductors No. 8 AWG and larger shall be taped with two half-lap layers of vinyl plastic electrical tape and finish wrap of color coded tape where required by code.
- C. Cable splices shall be made only in manholes, handholes, wireways, distribution boxes, and junction boxes.

**3.08 INSTALLING WIRING DEVICES**

- A. Do not install devices until wiring is complete.
- B. Do not use terminals on wiring devices (hot or neutral) for feed-through connections, looped or otherwise. Make circuit connections by using wire connectors and pigtails.

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- C. Install gasket plates for devices or system components having light emitting features such as switch with pilot light and dome lights. Where installed on rough textured surfaces, seal with black self-adhesive polyfoam.
- D. Ground receptacles with insulated green ground wire from device ground screw to bolted outlet box connection or as shown on drawings.
- E. Install GFCI receptacles as required by NEC.
- F. Install emergency switches which occur adjacent to normal light switches in separate boxes to maintain systems isolation in accordance with NEC.

3.09 INSTALLING MOTOR STARTERS

- A. Examine area to receive motor starters to ensure adequate clearance for starter installation.
- B. Install in MCC or on equipment rack, or anchor firmly to wall or structural surface.

3.10 INSTALLING MOTOR AND CIRCUIT DISCONNECTS

- A. Locate disconnect switches as shown on drawings and required by NEC.
- B. Provide control circuit interlock as required by NEC.
- C. Overcurrent Protective Devices:
  - 1. Install fuses just prior to energizing equipment.
  - 2. Locate circuit breakers as shown on drawings.

3.11 INSTALLING PANELBOARDS – See Section 26 24 16

3.12 INSTALLING TRANSFORMERS

- A. Install wall mounted transformers on prefabricated brackets designed for that purpose.
- B. Install floor mounted transformers on 4 inch high concrete housekeeping pads.
- C. Tighten bus connections and mechanical fasteners.
- D. Adjust voltage taps for required system voltage and check grounding requirements.

3.13 FIELD QUALITY CONTROL

- A. Control Circuits, Branch Circuits, Feeders, Motor Circuits, and Transformers:
  - 1. Megger check of phase-to-phase and phase-to-ground insulation levels.
    - a. Do not megger check solid state equipment.
  - 2. Continuity.
  - 3. Short circuit.
  - 4. Operational check.
- B. Wiring Devices: Test receptacles with Hubbell 5200, Woodhead 1750, or equivalent tester for correct polarity, proper ground connection, and wiring faults.

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- C. Perform testing as required by Specification Section 26 01 26.
- D. Phase Rotation: Prior to the operation of rotating machinery, verify phase rotation is the same as that recorded prior to demolition. Phase rotation shall be checked at all major points in the electrical system as well as motors in excess of 1HP.

3.14 ADJUSTMENT AND CLEANING

- A. Motor Disconnects:
  - 1. Adjust covers and operating mechanisms for free mechanical movement.
  - 2. Verify overcurrent protection thermal unit size with motor nameplate to provide proper operation and compliance with NEC.
  - 3. Tighten wire and cable connections.
  - 4. Clean interior of enclosures.
  - 5. Touch up scratched or marred surfaces to match original finish.
- B. Circuit Breakers: Adjustable settings shall be set to provide proper operation, and compliance with NEC.
- C. Under Voltage Phase Failure Time Delay Restart Relay: Adjust control relay to cause motor starter to drop out at voltage slightly higher than dropout voltage of starter and have dropout time slightly faster than motor starter to ensure if motor starter drops out, relay will also drop out.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 specification sections apply to this section. If differing requirements are identified elsewhere in these specifications or on drawings or separate instructions, the more stringent requirement shall be met.

1.2 RELATED SECTIONS

- A. 26 05 05 Basic Materials and Methods
- B. 26 01 26 Testing of Electrical Systems
- C. 26 24 16 Panelboards

1.3 DESCRIPTION

- A. The Contractor shall furnish and install, where indicated, a freestanding, dead-front type low voltage distribution switchboard utilizing group mounted circuit protective devices as specified herein and as shown on the contract drawings.
- B. Work of this section includes the main switchboard.

1.4 REFERENCES

- A. The low voltage distribution switchboards and all components shall be designed, manufactured, and tested in accordance with the latest applicable following standards:
  - 1. NEMA PB-2
  - 2. UL Standard 891
  - 3. UL Standard 489
  - 4. UL Standard 1066
  - 5. UL Standard 50
- B. Circuit breakers shall be manufactured in accordance with UL Standard 489 and/or UL 1066.

1.5 SUBMITTALS

- A. Submit under provision of Section 01 30 00 - Shop Drawings.
- B. Product Data:
  - 1. Circuit breakers
  - 2. Fusible switch disconnects
  - 3. Ground fault sensor
  - 4. Current and voltage transformers
  - 5. Metering devices, relays, switches
  - 6. Trip units
  - 7. Digital multi-meter
  - 8. Switchboard floor, ceiling and elevation drawings with dimensions and circuit breaker type called out.
  - 9. Arc flash mitigation equipment and operating procedures.

10. Custom transformer-to-switchboard transition section showing dimensions.
11. A drawing of the transformer elevation depicting field measured measurements of the transformer low voltage bus window.
12. A sample of the copper-braided shunt that will be utilized in the custom transition section.

## PART 2 - PRODUCTS

### 2.1 MAIN SWITCHBOARD

- A. General:
1. Main switchboard shall be UL listed as suitable for utility type service entrance, 120/208 volt, 3 phase, 4 wire, NEMA 1 enclosure.
  2. Main switchboard shall be free standing floor mounted dead front, dead rear type. All sections of the switchboard shall align so the back of the complete structure may be placed flush against a wall or other freestanding enclosure.
  3. Construction shall allow maintenance of incoming line terminations, main device connections and all main bus bolted connections to be performed from the front of the switchboard with no rear access allowed.
    - a. Finish: All exterior and interior steel surfaces of the switchboard shall be properly cleaned and provided with a rust-inhibiting phosphatized coating. Color and finish of the switchboard shall be ANSI 61 light gray.
    - b. Nameplates: Engraved nameplates, mounted on the face of the assembly, shall be furnished for all main and feeder circuits as indicated on the drawings. Nameplates shall be laminated plastic, black characters on white background. Nameplates shall give item designation (i.e., load designation) and circuit number.
    - c. Furnish master nameplate giving switchboard designation, voltage ampere rating, short circuit rating, manufacturer's name, general order number, and item number.
  4. The feeder or branch devices shall be removable from the front and be group mounted with the necessary device line and load connections front accessible.
  5. The main horizontal bus bars shall be mounted on glass polyester insulators with all three phases arranged in the same vertical plane.
    - a. The main bus shall be non-tapered and have a capacity of 3,000 amperes and shall be copper and rated and braced for short circuit current of 85,000 RMS symmetrical amperes.
    - b. Provide full capacity neutral bus.
    - c. Bus joints shall be silver flashed.
  6. Vertical sections shall be completely factory assembled with copper bus, wired and tested before delivery, and shall bear UL labels. Individual vertical sections shall be designed for bolting together at installation site.
  7. Main switchboard design, construction, and installation shall meet NEC 2023, NEMA standards, and MIOSHA requirements.
  8. Main switchboard shall consist of:
    - a. A custom-fabricated transformer transition section.
    - b. A section for the main service circuit breaker and digital multi-meter.
      - 1) Overcurrent protective devices (OCPDs) for the digital multimeter voltage inputs shall be located in an isolated, and protective, compartment for arc flash protection.
      - 2) Furnish and install CTs and shorting block to accommodate the digital multimeter current inputs.
    - c. Additional distribution sections or as shown on the drawings.

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9. All exterior and interior steel surfaces at the main switchboard shall be properly cleaned and finished with grey hard dried enamel over a rust inhibiting coating.
  10. A ground bus shall be furnished firmly secured to each vertical section and shall extend the entire length of the switchboard.
  11. The switchboard shall be provided with adequate lifting means.
  12. Furnish and install padlock hasps on all circuit breakers.
- B. Transformer/Switchboard Transition Section:
1. This project shall utilize the existing dry-type transformer.
  2. Furnish and install a custom-fabricated transition section between the laminated, flexible, copper transformer low voltage lugs and the switchboard entry lugs.
- C. Main Circuit Breaker and Metering Section:
1. Provide one (1) three phase circuit multi-meter with ANSI accuracy class 0.3 (revenue grade) current transformers and direct voltage input. Furnish four (4) current transformers with a ratio of 3000:5.
  2. The multi-meter shall be an Electro Industries GaugeTech™ Shark250-60-10-V2-D2-INP100S-RS1S-X. No equal.
  3. Provide main breaker with following specification:
    - a. Main circuit breaker shall be 3000A amperes, 3 pole, manually operated.
    - b. The main circuit breaker shall be switchboard class insulated case low-voltage power circuit breakers, Eaton type Magnum SB or approved equals by:
      - 1) ABB
      - 2) Siemens
      - 3) Square D
    - c. The main circuit breaker shall have a minimum symmetrical interrupting capacity of 65,000. To ensure a selective system, all circuit breakers shall have 30-cycle short-time withstand ratings equal to 18 times their frame ratings. Insulated case circuit breakers shall be equipped with a fixed internal instantaneous override set at that level.
    - d. The breaker shall include padlockable pushbutton covers and MIOSHA compliant mechanical lockout device. The padlockable pushbutton covers shall hold the circuit breakers OPEN pushbutton when a padlock is applied.
      - 1) The main circuit breaker shall be key interlocked with the existing primary switch supplying the switchboard.
      - 2) The key interlock scheme shall require the primary switch supplying the switchboard to be opened before the main circuit breaker can be operated.
      - 3) Furnish and install new key interlocks matching the key interlock scheme shown on the plans.
    - e. Main Circuit Breaker TRIP UNIT - The main circuit breaker shall be equipped with a true RMS sensing, solid-state tripping system consisting of four current sensors, microprocessor-based trip device and flux-transfer shunt trip. The trip unit shall use microprocessor-based technology to provide the basic adjustable time-current protection functions. Interchangeable current sensors with their associated rating plug shall establish the continuous trip rating of each circuit breaker.
      - 1) Trip units shall have an information system that provides LEDs to indicate mode of trip following an automatic trip operation. The indication of the mode of trip shall be retained after an automatic



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- trip. A reset button shall be provided to turn off the LED indication after an automatic trip.
- 2) All trip unit settings shall be adjustable by visible dials for each trip function. All trip functions shall have dials for pickup and delay except for the instantaneous.
  - 3) Trip units shall have an information system that provides LEDs to indicate mode of trip following an automatic trip operation. The indication of the mode of trip shall be retained after an automatic trip. A reset button shall be provided to turn off the LED indication after an automatic trip.
  - 4) Trip units shall include the following individually adjustable time/current curve shaping solid-state elements:
    - (a) Programmable long-time setting, programmable long-time delay
    - (b) Programmable short-time setting; programmable short-time delay with selectable flat or I2t curve shaping
    - (c) Programmable instantaneous setting including OFF position
    - (d) Programmable individually adjustable ground fault current pickup and time, with selectable flat or I2t curve shaping. The trip unit shall be capable of ground fault trip or ground alarm.
  - 5) The trip unit shall include an Arc Flash Reduction Maintenance System (ARMS)
    - (a) The ARMS technology shall be provided to reduce arc energy during periods of maintenance. The system shall engage an independent, reduced instantaneous pickup and reduce total clearing time when activated.
    - (b) The pick-up value shall be adjustable with a minimum of (5) settings to allow the greatest arc energy reduction without nuisance tripping.
    - (c) With the ARMS technology active, total clearing time shall not exceed 40 msec for any fault currents above the pick-up value.
    - (d) Activation and deactivation of the ARMs technology and local indication shall be accessible from the face of the trip unit without opening the circuit breaker door and exposing operators to energized parts. Recalibration or adjustment of trip unit parameters shall not be required when enabling and/or disabling the ARMS technology.
    - (e) The main circuit breaker section shall include a separate, local, lockable ARMS activation selector switch and pilot light indication.

D. Distribution Section:

1. Provide distribution sections with outgoing feeders as shown in the drawings.
2. Ampere ratings of outgoing circuit breaker feeders are shown on the drawing.
3. Protective devices shall be UL489 Listed molded case circuit breakers with inverse time and instantaneous tripping characteristics and shall be Eaton or approved equals by:
  - a. ABB
  - b. Siemens
  - c. Square D

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4. Circuit breakers shall have a minimum symmetrical interrupting of 65,000 amperes at 240V
5. Where indicated circuit breakers shall be UL listed for series application.
6. Circuit breakers shown without specific trip functions have thermal-magnetic trip units and inverse time-current characteristics.
7. Furnish and install solid state, 100% rated circuit breakers where trip functions are shown on the drawings.
  - a. 100% rated circuit breakers shall have a microprocessor-based tripping system shall consist of three (3) current sensors, a trip unit and a trip actuator. The trip unit shall use microprocessor-based technology to provide the adjustable time-current protection functions. True RMS sensing circuit protection shall be achieved by analyzing the secondary current signals received from the circuit breaker current sensors and initiating trip signals to the circuit breaker trip actuators when predetermined trip levels and time-delay settings are reached.
  - b. An adjustable trip setting dial mounted on the front of the trip unit shall establish the continuous trip ratings of each circuit breaker.
  - c. System coordination shall be provided by adjusting rotary switches for the following microprocessor-based time-current curve shaping adjustments:
    - 1) Adjustable long-time setting set by adjusting the trip setting dial or rating plug
    - 2) Minimum of (10) adjustable profile settings including:
      - (a) Short delay pick-up settings from 2x - 10x.
      - (b) Short delay time settings from Instantaneous to 300msec
      - (c) Flat or I<sup>2</sup>t short delay response
      - (d) One programmable setting for a custom user defined short delay pick-up and time
      - (e) The switches shall be color coded to separately indicate overload protection settings and short circuit protection settings
  - d. The microprocessor-based trip unit shall have both powered and unpowered thermal memory to provide protection against cumulative overheating should several overload conditions occur in quick succession. Breakers with ground fault protection shall include an additional thermal memory for the ground fault pick-up for enhanced protection from intermittent or arcing line-to-ground faults.
  - e. The trip unit shall be provided with an instantaneous override.
  - f. Trip units shall be capable of being programmed and tested with an industry standard USB cable using a software tool available from the manufacturer's website. The software shall provide the following functionality:
    - 1) Cause-of-trip information
    - 2) Breaker current sensor continuity testing capability
    - 3) Breaker trip actuator testing capability
    - 4) Setting / Saving / Uploading / Downloading of trip unit setpoints including a setpoint wizard
    - 5) Trip unit secondary injection testing without the need for dedicated test equipment with automatic test reporting capability. Trip units without software secondary injection test / reporting capability must be provided with the required dedicated trip unit test equipment.
8. Provide space for future addition of at least two (2) 125A, 3 pole circuit breakers.

END OF SECTION

PART 3 - EXECUTION

3.1 INSTALLATION

- A. On the existing switchboard, take measurements for the fabrication of a custom transition section.
- B. Main switchboard shall be set to align with conduits stubbing up into its pull section.
- C. Ground the switchboard to the main ground system as shown in the drawings.
- D. All wiring terminations shall be marked as to wire number, circuit number or load served.
- E. Prepare and affix typewritten directory to the transition section of the switchboard indicating loads controlled by each circuit.
- F. Furnish and install lamacoid name plates for the switchboard name (at the top of the main circuit breaker section) and each feeder circuit breaker. Furnish nameplates on spare circuit breakers indicating them as such.
- G. Furnish and install an enclosure and install it between the back of the switchboard and the electrical vault door to prevent access behind the switchboard. Enclosure shall have a finish matching the switchboard and ANSI 61 Grey.
- H. Furnish startup and commissioning services by the field service organization of the manufacturer. Startup and commissioning services are specified in Section 26 01 26.
- I. Furnish a 2-year warranty from date of switchboard final AHJ approval.

3.2 TRAINING

- A. The Contractor shall provide a training session for up to five (5) Owner's representatives for one weekend day at the switchboard job site.
- B. A manufacturer's qualified representative shall conduct the training session. The training program shall consist of instruction on:
  - 1. Operation of the assembly
  - 2. Circuit breakers - Explain the basic difference between UL489 and UL1066 circuit breakers
  - 3. Electronic trip units:
    - a. Dial settings
    - b. Use of laptop-based software for collection of information.
    - c. NEC 240.87 and the operation of the Arc Reduction Maintenance Switch.
  - 4. Key interlock sequence
  - 5. Electronic multimeter:
    - a. Manual reading
    - b. Manual re-setting of recorded min/max values
    - c. Use of laptop-based software for collection of information.
  - 6. Photography techniques for data collection related to electrical engineering studies and system design.
  - 7. Fused switches
  - 8. Major components within the assembly.

*Project Name: General Services Building Switchgear Replacement*  
*Project Number: MIS032.10*  
*DTMB Project Number: 171/22311.SDW*

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END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 01 specification sections, apply to this section. If differing requirements are identified elsewhere (in these specifications or on drawings or separate instructions), the more stringent requirement shall be met.

1.2 SCOPE

- A. The Contractor shall furnish and install the panelboards as specified and as shown on the contract drawings.

1.3 RELATED SECTIONS

- A. Section 26 50 00 - Lighting
- B. Section 26 24 13 - Switchboards

1.4 REFERENCES

- A. The panelboards and all components shall be designed, manufactured and tested in accordance with the latest applicable standards of NEMA and UL as follows:
  - 1. UL 67 - Distribution Panelboards and Branch Panelboards
  - 2. UL 50 - Cabinets and boxes
  - 3. NEMA PB1
  - 4. Fed. Spec. W-P-115C
  - 5. Circuit breaker - Type I, Class I
  - 6. Fusible switch - Type II, Class I

1.5 SUBMITTALS – FOR REVIEW/APPROVAL

- A. The following information shall be submitted to the Engineer:
  - 1. Breaker layout drawing with dimensions indicated and nameplate designation
  - 2. Component list
  - 3. Conduit entry/exit locations
  - 4. Assembly ratings including:
    - a. Short-circuit rating
    - b. Voltage
    - c. Continuous current
  - 5. Cable terminal sizes
  - 6. Product data sheets
  - 7. Cut sheets and catalog information for all overcurrent protective devices and Surge Protective Devices.
- B. Where applicable, the following additional information shall be submitted to the Engineer:
  - 1. Key interlock scheme drawing and sequence of operations.
  - 2. Catalog numbers for all accessories.

1.6 SUBMITTALS – FOR CONSTRUCTION

- A. The following information shall be submitted for record purposes:

1. Final as-built drawings and information for items listed in paragraph 1.04 and shall incorporate all changes made during the manufacturing process.
2. Installation information.
3. Seismic certification and equipment anchorage details as specified.

#### 1.7 QUALIFICATIONS

- A. The manufacturer of the assembly shall be the manufacturer of the major components within the assembly.
- B. For the equipment specified herein, the manufacturer shall be ISO 9001 or 9002 certified.
- C. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of five (5) years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.
- D. Provide Seismic tested equipment as follows:
  1. The equipment and major components shall be suitable for and certified to meet all applicable seismic requirements of the International Building Code (IBC) for Zone 4 application.
  2. Guidelines for the installation consistent with these requirements shall be provided by the panelboard manufacturer and be based upon testing of representative equipment. The test response spectrum shall be based upon a 5% minimum damping factor, IBC: a peak of 2.45g's (3.2-11 Hz), and a ZPA of 0.98g's applied at the base of the equipment. The tests shall fully envelop this response spectrum for all equipment natural frequencies up to at least 35 Hz.

#### 1.8 REGULATORY REQUIREMENTS

- A. The panelboards shall be UL labeled.

#### 1.9 DELIVERY, STORAGE AND HANDLING

- A. Equipment shall be handled and stored in accordance with manufacturer's instructions. One (1) copy of the instructions shall be included with the equipment at time of shipment.

#### 1.10 OPERATION AND MAINTENANCE MANUALS

- A. Equipment operation and maintenance manuals shall be provided with each assembly shipped and shall include instruction leaflets, instruction bulletins, and renewal parts lists where applicable for the complete assembly and each major component.
- B. In addition, O&M manuals shall have catalog information for each panelboard highlighting components and options installed.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Eaton Electrical
- B. ABB

- C. Siemens
- D. Square D
- E. The listing of specific manufacturers does not imply acceptance of their products that do not meet the specified ratings, features, and functions. Manufacturers listed are not relieved from meeting these specifications in their entirety. Products in compliance with the specification and manufactured by others not named will be considered only if pre-approved by the Engineer ten (10) days prior to bid date.

## 2.2 RATINGS

- A. Panelboards rated 240 Vac or less shall have short circuit ratings as shown on the drawings or as herein scheduled, but not less than 65,000 amperes RMS symmetrical.
- B. Panelboards rated 480 Vac shall have short circuit ratings as shown on the drawings or as herein scheduled, but not less than 35,000 amperes RMS symmetrical.
- C. Panelboards shall be labeled with a UL short circuit rating. When series ratings are applied with integral or remote upstream devices a label or manual shall be provided. It shall state the conditions of the UL series ratings including:
  - 1. Size and type of upstream device
  - 2. Branch devices that can be used
  - 3. UL series short circuit rating

## 2.3 CONSTRUCTION

- A. Interiors shall be completely factory assembled and designed so switching and protective devices can be replaced without disturbing adjacent units and without removing the main bus connectors.
- B. Trims for branch circuit panelboards shall be supplied with a hinged door over all circuit breaker handles. Doors in panelboard trims shall not uncover any live parts. Doors shall have a semi flush cylinder lock and catch assembly. Door-in-door trim shall be provided. Both hinged trim and trim door shall utilize three point latching. No tools shall be required to install or remove trim. Trim shall be equipped with a door-actuated trim locking tab. Equip locking tab with provision for a screw such that removal of trim requires a tool, at the Owner's option. Installation shall be tamper resistant with no exposed hardware on the panelboard trim.
- C. Panelboard trims shall cover all live parts. Switching device handles shall be accessible.
  - 1. For branch panelboards (225A or under) furnish padlock hasps on all main circuit breakers.
  - 2. For distribution panels (over 225A) furnish padlock hasps on all circuit breakers.
- D. Surface trims shall be same height and width as box. Flush trims shall overlap the box by 3/4 of an inch on all sides.
- E. A directory card with a clear plastic cover shall be supplied and mounted on the inside of each door. Directory cards shall comply with the National Electrical Code 2023.
- F. Each panelboard shall have a permanent lamacoid label indicating the panelboard name.

- G. All locks shall be keyed alike.

#### 2.4 BUS

- A. Main bus bars shall be copper sized in accordance with UL standards to limit temperature rise on any current carrying part to a maximum of 65°C above an ambient of 40°C maximum.
- B. A system ground bus shall be included in all panels.
- C. Full size 100% rated insulated neutral bars shall be included for panelboards shown with neutral. Bus bar taps for panels with single-pole branches shall be arranged for sequence phasing of the branch circuit devices. Neutral busing shall have a suitable lug for each outgoing feeder requiring a neutral connection.

#### 2.5 BRANCH CIRCUIT PANELBOARDS

- A. The minimum short circuit rating for branch circuit panelboards shall be as specified herein or as indicated on the drawings. Panelboards shall be fully rated unless otherwise shown on plans. Panelboards shall be Eaton Pow-R-Line 1a, Pow-R-Line 2a or Pow-R-Line 3a or approved equals by:
  - 1. ABB
  - 2. Siemens
  - 3. Square D
- B. Bolt-on type, heavy duty, quick-make, quick-break, single- and multi-pole circuit breakers of the types specified herein shall be provided for each circuit with toggle handles that indicate when unit has tripped.
- C. Circuit breakers shall be thermal-magnetic type with common type handle for all multiple pole circuit breakers. Circuit breakers shall be minimum 100 ampere frame and through 100 ampere trip sizes shall take up the same pole spacing. Circuit breakers shall be UL listed as type SWD for lighting circuits.
  - 1. Circuit breaker handle locks shall be provided for all circuits that supply exit signs, emergency lights, energy management, and control system (EMCS) panels and fire alarm panels.
- D. Circuit breakers shall have a minimum interrupting rating of 10,000 amperes symmetrical at 240 volts, and 14,000 amperes symmetrical at 480 volts, unless otherwise noted in the drawings.
- E. All branch panelboards fed from separately derived systems (delta-wye transformers, for example) shall have an adjustable long time pickup and be 100% rated. Furnish and install 90°C rated wire as necessary to comply with the NEC.

#### 2.6 DISTRIBUTION PANELBOARDS – CIRCUIT BREAKER TYPE

- A. Distribution panelboards with bolt-on devices contained therein shall have interrupting ratings as specified herein or indicated on the drawings. Panelboards shall be fully rated unless otherwise noted in the drawings. Panelboards shall be Eaton Electrical type Pow-R-Line 3x, Pow-R-Line 4x or equals by:
  - 1. ABB



2. Siemens
3. Square D

- B. Panelboards shall have molded case circuit breakers as indicated below.
1. Where indicated, provide circuit breakers UL listed for application at 100% of their continuous ampere rating in their intended enclosure.
  2. Provide shunt trips, bell alarms, and auxiliary switches as shown on the contract drawings.
  3. Furnish and install padlock hasps on all circuit breakers.

## 2.7 MAIN AND FEEDER PROTECTIVE DEVICES

- A. Main and feeder devices shall be UL 489 listed Molded Case Circuit Breakers (MCCBs).
- B. Main circuit breakers with frames 400A or above shall be UL listed for 100% of their continuous ampere rating.
- C. Feeder circuit breakers with frames 400A or above shall be UL listed for 100% of their continuous ampere rating.
- D. Main and feeder circuit breakers with frames under 400A shall be thermal-magnetic unless noted otherwise.
- E. Thermal magnetic feeder circuit breakers with frames 225A and above shall have adjustable instantaneous trip units.

## 2.8 TRIP UNITS

- A. Trip units 400A and above shall be fully adjustable by rotating dials and be capable of adding an arc flash reduction maintenance feature. Trip unit shall have independent adjustments for all pickup and delay functions called out on plans and specifications. Trip units shall be Eaton Electrical PXR-20 or approved equal by:
1. ABB
  2. Siemens
  3. Square D

## 2.9 SOLID STATE METERING DEVICES

- A. Electronic multi-metering units where shown on plans shall be Electroindustries Guagetech Shark 250; no equal.
1. Self-enclosed: ENCCHK250-120-60-10-V2-D2-INP100S-X
  2. ANSI mounted in panelboard: Shark250-60-10-V2-INP100S-X-X

## 2.10 SURGE PROTECTIVE DEVICES

- A. Furnish and install surge protective devices as required by Code or where called out on plans and specifications.

## 2.11 ENCLOSURE

- A. Enclosures shall be at least 20 inches wide made from galvanized steel. Provide minimum gutter space in accordance with the NEC. Where feeder cables supplying the mains of a panel are carried through its box to supply other electrical equipment, the box shall be

sized to include the additional required wiring space. At least four interior mounting studs with adjustable nuts shall be provided.

- B. Enclosures shall be provided with blank ends.
- C. Where indicated on the drawings, branch circuit panelboards shall be column width type.

#### 2.12 NAMEPLATES

- A. Provide an engraved nameplate for each panel section.

#### 2.13 FINISH

- A. Surfaces of the trim assembly shall be properly cleaned, primed, and a finish coat of gray ANSI 61 paint applied.

### PART 3- EXECUTION

#### 3.1 FACTORY TESTING

- A. The following standard factory tests shall be performed on the equipment provided under this section. All tests shall be in accordance with the latest version of NEMA and UL standards.

#### 3.2 INSTALLATION

- A. The Contractors shall install all equipment per the manufacturer's recommendations and the contract drawings.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 01 specification sections, apply to this section. If differing requirements are identified elsewhere (in these specifications or on drawings or separate instructions), the more stringent requirement shall be met.

1.2 SECTION INCLUDES

- A. General provisions for electrical work associated with installation of lighting.

1.3 STANDARDS

- A. Applicable Standards and Codes:
  - 1. Institute of Electrical and Electronic Engineers (IEEE).
  - 2. Underwriters Laboratories, Inc. (UL).
  - 3. National Electrical Manufacturers Association (NEMA).
  - 4. National Electrical Code (NEC).
  - 5. American Society for Testing and Materials (ASTM).
  - 6. American National Standards Institute (ANSI).
  - 7. National Board of Fire Underwriters (NBFU).
  - 8. National Electrical Contractors "Standard of Installation" (NECA)
  - 9. Joint Industrial Council (JIC).
  - 10. Code of Federal Regulations (CFR). Title 29 Labor, Subpart S-Electrical.
  - 11. State of Michigan Building Code
  - 12. State of Michigan Energy Code.
  - 13. State of Michigan Occupational and Safety Administration (MIOSHA)
- B. Where quantities, sizes, or other requirements shown on the drawings or specified herein exceed the requirements of the above standards and codes, the drawings and specifications shall govern.

1.4 SUMMARY OF WORK

- A. Refer to the drawings and this section for all work associated with the installation of the site lighting, lighting controls, and associated power distribution requirements.
- B. The purpose of this document is to provide direction for the bidding of lighting upgrades on a design/build basis for the State of Michigan General Services Building. Contractors are to thoroughly review this document, their site walk observations, and information provided by Michigan Lighting Systems and provide a bid that is a complete design/build bid with any gaps identified. All engineering (for full permits and construction plans) shall be included.
- C. This document and included drawings are not a complete engineering plan. Additional engineering and coordination will be required.
- D. For more information contact Michigan Lighting Systems West, Tony Burgess, [tburgess@mls-west.com](mailto:tburgess@mls-west.com), 616.821.2598.

## 1.1 SUBMITTALS

- A. Submit under provision of:
  - 1. Section 01020 – ALLOWANCES
  - 2. SECTION 01300. - SUBMITTALS
- B. Submit to the Engineer for approval
  - 1. Plans and specifications supplied by Michigan Lighting West depicting ceiling plan, luminaire type, power circuit designation, updated panelboard schedules, and load calculations.
  - 2. All emergency lights and lighting units shall be called out on the plans.
  - 3. Photometric Plans shall be submitted for both normal and emergency lighting conditions.
- C. Submit materials and equipment for review to Engineer as required in this section. Each sheet of descriptive literature submitted shall be clearly marked to identify the material or equipment and shall show the specification paragraph for which the equipment applies.
  - 1. Submit schematics and connection diagrams for all lighting control equipment and luminaires. A manufacturer's standard connection diagram or schematic showing more than one scheme of connection will not be accepted unless it is clearly marked to show the intended connections.
  - 2. Submittals showing more than the particular item under consideration shall have the pertinent description paragraph for which the equipment applies circled or highlighted with a marker intended for that purpose.
- D. Submittals for the following site lighting equipment and components shall be submitted for approval:
  - 1. Light fixtures (luminaries) & associated components
  - 2. Lighting control devices
  - 3. Overcurrent protection devices
  - 4. Emergency Lighting devices
- E. After award of the contract and prior to starting any work, the Contractor shall submit to the Engineer:
  - 1. List of subcontractors scheduled and planned for utilization on the project.
  - 2. Detailed work plan outlining methods and procedures to accomplish the intent and purpose of the contract.
  - 3. Work schedule detailing dates of principle events and completion date. All downtime needed in the schedule shall be approved by the Owner and Engineer.
- F. Operating and Maintenance Instructions:
  - 1. Upon completion of all work and tests, instruct the Owner in the operation and maintenance of all components.
  - 2. Provide documentation, cut sheets, equipment data and wiring diagrams, suggested spare parts list, submittal drawings, and as-built drawings to the Owner at substantial completion.

## 1.2 CLEARANCES

- A. Equipment:
  - 1. Maintain clearances from electric panels and control cabinets, and other electrical installations as required by NEC.

2. Maintain working clearances around electrical equipment as required for proper maintenance and operation.

### 1.3 IDENTIFICATIONS

- A. Provide identification signs on all equipment, switches, breakers, panels, lighting control cabinet and associated major control components.
- B. Provide a typewritten circuit identification schedule in each distribution or branch circuit panelboard under glass or plastic. Each circuit to be identified by load. Panelboard circuit schedule shall meet the new requirements of the NEC 2023. Coordinate with owner and Engineer as necessary to define room numbers. New room numbers and room number changes shall be highlighted on record drawings submitted prior to final close-out.

### 1.4 CODES AND STANDARDS

- A. These specifications are minimum requirements and shall govern except where made more stringent by other sections of this specification or local, state, or federal laws or regulations. In the event of conflict between these specifications and applicable codes and regulations, the codes and regulations shall govern.

### 1.5 PERMITS, INSPECTIONS AND UTILITY CONNECTIONS

- A. Obtain all necessary permits and pay all fees in connection with all permits, inspections, and approval by the proper authorities in local jurisdiction of such work. Final inspection by the Engineer will not occur until necessary certificates of satisfactory inspection are received. The Contractor shall ascertain these charges prior to bidding and indicate the amount on the bid form. Excess allowance amounts shall be credited and inadequate allowance amounts shall be charged to Owner.

### 1.6 DRAWINGS

- A. Drawings and specifications are provided for assistance to the Contractor and are diagrammatic only to indicate the general arrangement of luminaires. Exact locations will be determined by field conditions. Deviations from the arrangement indicated to meet structural and actual conditions shall be made with no expense to the Owner. Throughout the progress of construction, the Contractor shall keep a set of detailed field record drawings including the exact location of lighting controls, lighting panel branch circuit identification, and Luminaire locations. This requirement does not authorize any deviations from the contract drawings without prior approval from the Owner. The field record information shall be marked in a legible manner on prints of the drawings. At the completion of work, the field record information shall be delivered by the Contractor to the Owner.

## PART 2 - PRODUCTS

### 2.1 GENERAL REQUIREMENTS

- A. Equipment shall be accepted, certified, listed, and labeled by UL.
- B. No substitutions for materials and equipment are allowed without the express written permission from both Michigan Lighting West and the Engineer.

- C. All packaged equipment shall be completely factory wired prior to delivery to the jobsite. Connection to and bonding of this equipment is required under this section of the specifications.

## 2.2 LIGHTING FIXTURES

- A. All lighting products are to match existing and provided per attached photometric layout as updated by Michigan Lighting Systems West.
- B. Recessed troffers shall be Cree CR series with Smartcast controls; no equal. Smartcast enabled fixtures shall have integrated sensors with intelligent algorithms to automatically and wirelessly learn and interact with each other within each space. Networks shall be capable of being established utilizing a one button set-up configuration tool provided by Cree. Fixtures shall be 4000K with 90 CRI with TrueWhite® Technology. Fixtures shall have a limited 10-year warranty and be DLC Premium listed.
- C. Final adjustment or aiming of lighting fixtures, where necessary, shall be done during hours of darkness by arrangement with Engineer. On completion of construction, lamp or relamp all fixtures as necessary. Replace all ballasts which fail during the guarantee period.
- D. For fixture type, descriptions, and details refer to the Light Fixture Schedule located on drawings and/or as provided by Michigan Lighting Systems.
- E. Furnish and install fast acting GLR fuses and fuse blocks for each luminaire.

## 2.3 LOW VOLTAGE, LIGHTING AND POWER CONDUCTORS

- A. Conductors provided on 120/240-, 120/208- and 277/480-volt power and lighting systems shall be stranded per ASTM B-8 soft drawn copper.
- B. The insulation system shall be type THWN-2 or XHHW rated 600V and listed for wet locations as defined and listed in Article 310 of NEC.
- C. The minimum size conductor utilized shall be #14 AWG for control circuits and #12 AWG for power and lighting circuits.
- D. Color code conductor insulation as follows:
  - 1. Line Voltage - Black
  - 2. Grounding Conductor - Green
  - 3. Neutral - White
  - 4. Control - Red
  - 5. DC Circuits - Blue
  - 6. Voltage from External Source - Yellow
  - 7. Color shall be integral with the insulation compound applied by cable manufacturer.
- E. Termination of Conductors:
  - 1. Insulated type mechanical or compression lugs.
  - 2. At distribution equipment containing aluminum bus bars; use aluminum copper lugs rated and approved for the application.

## 2.4 CONDUIT - See Section 26 05 05 - Basic Materials and Methods.

## 2.5 DAYLIGHT AND OCCUPANCY CONTROLS

- A. Furnish daylight and occupancy controls Per MI Energy Code and ASHRAE 90.1-2013.
  - B. Integral motion sensor: Passive infrared (PIR); operation:
    - 1. Grouped with a wall control: Luminaire shall operate in vacancy mode.
    - 2. Not grouped with a wall control: Luminaire will operate in occupancy mode.
    - 3. Ambient light sensor: Sensors response shall match the response of a human eye.
    - 4. Daylight harvesting calibration performed automatically during one button setup.
    - 5. Integral wireless communication: 2.4GHz wireless mesh technology with AES
    - 6. 128-bit encryption that self-assigns to quietest channel during one button set up.\
    - 7. Network: up to 250 devices max; Space; 100 devices max. per group.
- 2.6 Surge Protective Devices (SPDs):
- A. Furnish surge protective devices as required by the National Electrical Code.
  - B. Furnish surge protective devices with each emergency lighting device, and unit stored power.

## 2.08 WIRING DEVICES

- A. Cover Plates:
  - 1. Provide for standard switches and receptacles. Cover plates to be stainless steel 302.
  - 2. Weather proof covers shall be swinging door type covers that cover the outlet during use and is permanently attachment to the outlet cover plate. Covers shall have locking hasp for locking the cover in the closed position.
- B. Fuses and fuse blocks. Furnish and install fast-acting GLR fuse links and fuse blocks for all luminaires.

## 2.09 OUTDOOR LUMINAIRES

- A. As specified by Michigan Lighting Systems West.
- B. UL listed for wet location.
- C. Furnish emergency power as required by code.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Furnish and install all equipment as specified, required, or implied in this specification. This requirement shall include all labor, premium labor time, materials, and incidentals in a manner consistent with good practice necessary to a complete operable installation.
- B. Cooperation with other trades shall be implemented by the Contractor by reference to the drawings and specifications for work by other trades and to be carried on simultaneously or sequentially with the electrical work. This requirement is to facilitate construction to proceed with no harm to the Owner due to the absence of cooperation. All other drawings and specifications shall become part of the electrical specifications as they relate to electrical work.

- C. Verify equipment dimensions to insure dimensional compatibility.
- D. Existing wiring and conduit may be re-used. See paragraphs G and H for additional requirements.
- E. The Contractor shall be responsible for connecting wiring and circuitry to all equipment furnished by others and any Contractor which requires electrical power or control to lighting.
- F. The Contractor shall demonstrate to the satisfaction of the Owner at final inspection that the wiring is complete and free from open circuits, short circuits between circuits and/or ground and that the system operates satisfactorily.
- G. The entire electrical installation shall be demonstrated to operate in accordance with the specifications. The Contractor shall test feeders and panels to verify no ground faults exist and submit certified test data to the Owner prior to final inspection.
- H. Contractor shall test all lighting branch circuits to new luminaires and room lighting controls with a 2000V megohmmeter. This test shall be carried out with no devices connected to prevent damage to equipment, and resistance shall be greater than one megohm. Submit testing to the Engineer with Lighting O&M Documents at project close-out.

### 3.2 LOW VOLTAGE LIGHTING AND POWER CABLES

- A. Install only after completion of work which might cause damage to wires or conduit.
- B. Clean out or replace conduit in which dirt, water, concrete, or other foreign matter has been allowed to accumulate before installing wiring.
- C. Identify each end of each conductor by wire marking tape or sleeve. Mark on outer cover giving voltage, type, size, and circuit number.
- D. Splices:
  - 1. No wire splices allowed in the entire length of conduit or raceway.
  - 2. Make splices in electrical enclosures.
- E. Termination of Conductors:
  - 1. Insulated type mechanical or compression lugs.
  - 2. At distribution equipment containing aluminum bus bars; use aluminum copper lugs rated and approved for the application.
- F. Provide separate conduit for each type of circuit (power, controls, and communications).
- G. Conductors terminating at outlets shall be left not less than 8 inches long within outlet box.
- H. Test each cable to verify the insulation has not been damage after installation of wire in the conduit.

### 3.3 CONDUIT

- A. Install the conduit in accordance with the manufacturer's recommendations. Minimum conduit size shall be 3/4". In no event shall the conduit size be less than required by NEC



for the wire size and number indicated. Galvanized conduit shall not be painted except where required by code or shown elsewhere.

- B. Use rigid steel galvanized conduit for outdoor installations above or below grade. Metal conduit systems shall be bonded to grounding systems.
- C. Support conduit per the NEC.
- D. Ends shall be standard ells with a maximum equivalent of four quarter bends in any run between pulling joints.
- E. Paint the ends of the conduit jointing couplings or threaded fittings with zinc rich coating of at least 90% purity zinc. Use cold galvanizing compounding ZRC Products Co. or Zinc-It or equal.
- F. Fasten all conduits entering boxes with locknut and bushing in the inside and locknut on the outside. Conduit should enter through only bottom of boxes unless otherwise specified.
- G. Where galvanized conduits are installed underground or in concrete slab, galvanized conduits shall be coated with two heavy coats of asphaltum paint. Coat new threads with one coat of zinc-it, wrap with cloth, and finish with a heavy coating of asphaltum paint applied over the entire joint. Acceptable coatings are Koppers Inertol No. 49 or Sherwin-Williams Coal Tar Epoxy C-200.
- H. Clean all conduits thoroughly inside and outside after installation and just before pulling cables. All conduits not terminated in metal fittings or metal cabinets and secured with locknuts shall be terminated with grounding bushings.
- I. Install only undamaged conduit. Plug ends to prevent entry of dirt and moisture.
- J. Layout conduit routing to avoid structural obstructions and minimizing crossovers. Conduit runs must be installed in a neat and well planned arrangement and in a manner that will not interfere with access to equipment or with the use of access ways.
- K. Provide conduit sealing fittings and seal conduit with duct seal where conduit enters and leaves outdoor electrical cabinets.
- L. Anchor Methods:
  - 1. Hollow Masonry: Toggle bolts or spider type expansion anchors.
  - 2. Solid Masonry: Lead expansion anchors or preset inserts.
  - 3. Metal Surfaces: Machine screws, bolts, or welded studs.
  - 4. Wood Surfaces: Wood screws.
  - 5. Concrete Surfaces: Self-drilling anchors or power-driven studs.
- M. Conduit shall be as shown on plans and/or as required for the installation of outlets and devices shown on drawings. All conduits shall be supported from the structure or provided rods independent of all other trades. The proper location of conduits shall be the responsibility of the electrical contractor who shall avoid interferences with other trades.
- N. All empty conduits installed for future use shall be capped or plugged and properly identified. All empty conduits shall have a pull string installed.

Project Name: General Services Building Switchgear Replacement

Project Number: MIS032.10

DTMB Project Number 171/22311.SDW

SECTION 26 50 00

LIGHTING

- O. Drains are required where it is probable that liquid or any condensed vapor may be trapped within enclosures, accumulated on seals, or accumulated at any point in the raceway system. All drains shall provide continuous draining. Drains shall be provided as follows:
  - 1. At the low points of any conduit system where any portion between seals is outdoors or in a building without heating facilities. Note especially any vertical sealing fittings.
  - 2. At any control or wiring enclosure that is outdoors or in a building without heating facilities.

3.4 TEST AND OPERATION

- A. Equipment:
  - 1. Thoroughly clean, lubricate, and protect from damage and dirt during operation.
  - 2. Test and operate in accordance with manufacturer's recommendations.

END OF SECTION