

PROJECT MANUAL

Ingham Intermediate School District
Mason, Michigan

VOLUME I

Tuesday, March 19, 2013

CACC Interior Renovations 2013

CONSTRUCTION MANAGER

Ingham ISD, Purchasing
Capital Area Career Center Room 605/606 611 Hagadorn Road
Mason, Michigan 48854
517-702-3461

Architect

Hobbs + Black Architects
117 E. Allegan Street
Lansing, Michigan 48933

Mechanical & Electrical Engineer

Hobbs + Black Architects
117 E. Allegan Street
Lansing, Michigan 48933

Structural Engineer

Hobbs + Black Architects
117 E. Allegan Street
Lansing, Michigan 48933

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SECTION 00025

Project: **Ingham Intermediate School District**
Project Description

Owner: **Ingham Intermediate School District**
2630 West Howell Road
Mason, Michigan 48854

Architect/Engineer: **Hobbs + Black Architects**
117 E. Allegan Street
Lansing, Michigan 48933

Construction Manager: Ingham ISD, Purchasing
Capital Area Career Center Room 605/606 611
Hagadorn Road
Mason, Michigan 48854
517-702-3461

Sealed proposals for all work categories as described in the Project Manual for the above project will be received no later than **Tuesday, March 19, 2013 at 1:00 PM**. Bids received after this time will not be opened, considered or accepted. Proposals should be addressed to Sam Ruegsegger, Project Manager, and delivered to Ingham ISD, Purchasing, Capital Area Career Center Room 605/606 611 Hagadorn Road, Mason, Michigan 48854 . All proposals will be publically opened and read aloud at this time.

Duplicate proposals shall be submitted to the Construction Manager at the above address on the proposal form provided, in a sealed envelope clearly marked **WORK CATEGORY NO. _____**, and shall be identified with the project name and the bidder's name and address.

All contractors bidding on work must be bondable and must include in their bid the cost for furnishing a Co-Obligee Labor and Material Payment Bond and a Co-Obligee Performance Bond. On the proposal form the contractor will identify a cost to be deducted from their bid should bonds not be required.

There will be a pre-bid conference at Ingham Intermediate School District, Capital Area Career Center – Room 605/606, 611 Hagadorn Road, Mason, Michigan 48854 on **Tuesday, March 5, 2013 at 3:30 PM** conducted by The Christman Company, Hobbs + Black Architects and Ingham Intermediate School District. It is strongly recommended that contractors attend the pre-bid conference.

Contract documents may be obtained after February 19, 2013 at www.bid4michigan.com. All questions are to be directed to the Construction Manager. No direct contact with the Owner or Architect is requested.

Each Proposal shall be accompanied by a certified check, cashiers' check, money order, or bid bond made payable to Ingham ISD, Purchasing in an amount not less than five percent (5%) of the base bid as a bid security. The Bid Security of Bidders under consideration will be returned immediately after award of contracts by the Construction Manager. The amount of the guarantee shall be forfeited to the Owner if the successful Bidder fails to enter into a contract and furnish required bonds and insurance within 30 days after award of contracts.

All proposals submitted shall remain valid for a period of sixty (60) days after the bid due date. The Owner, Architect and Construction Manager reserves the right to waive any irregularities, reject any or all proposals, or accept any proposal, which, in their opinion, will serve their best interest.

END OF SECTION 00025

ARTICLE 1, SCOPE OF PROPOSALS

- 1.1 This is a "Construction Manager Project" for which Ingham ISD, Purchasing is the "Construction Manager" For this portion of this project the successful bidders will become "Trade Contractors" and will enter into "Trade Contracts" with the Construction Manager. The Construction Manager will administer separate Trade Contracts for all Work Categories involved in the project. The project will be controlled, coordinated, and scheduled by the Construction Manager on behalf of the Owner.
- 1.2 Provisions shall be such that the Trade Contractor will assume the Construction Manager's obligations to the Owner for the portion of the work performed by each Trade Contractor.
- 1.3 Proposals: Separate proposals for the Work Categories included in this phase of the construction will be received by the Construction Manager. The time and place where proposals shall be received and a listing of the Work Categories included in this phase of the work are included in the Advertisement for Bids.

ARTICLE 2, BIDDER'S REPRESENTATION

- 2.1 Each Bidder by making his bid, represents that he has read and understands the bidding documents, and that they visited the site and familiarized himself with the local conditions under which the work is to be performed. No plea of ignorance of conditions that exist, or of any other relevant matter concerning the work to be performed in the execution of the work will be accepted as justification for failure to fulfill every detail of all the requirements of the Contract Documents. The Bidder, if awarded the Contract, shall not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder did not fully inform himself prior to the bidding.

ARTICLE 3, BIDDING PROCEDURES

- 3.1 Proposals shall be submitted in duplicate, only on the forms provided by the Construction Manager, all blank spaces shall be fully filled in, including Addenda, Alternates, Price Breakouts, Unit Prices and Bidder's Certificate where applicable. All designations and prices shall be fully and clearly set forth with the amount of the bid stated in words and repeated in numerical figures. In cases of variations, the worded amount shall prevail. Erasures or other changes in the bid shall bear the signature of the Bidder. Insert N/A in those blanks on the Proposal Form that are not applicable. Separate Proposal Forms shall be prepared for each Work Category.
- 3.2 The bids shall be on the basis of a Lump Sum. Proposals shall not contain any added recapitulation of the work to be done as otherwise the proposal may be declared irregular. Oral, telegraphic or telephonic modifications of the work and/or the bid amounts shall not be considered.
- 3.3 The Architect or Construction Manager will make clarifications and corrections by the issuance of an addendum to all Bidders recorded in the Construction Manager's office as having in their possession a set of bidding documents. Addenda shall also be issued on

www.bid4michigan.com and to all plan rooms in which bidding documents are on file.

- 3.4 It shall be the responsibility of the Bidders on record to provide all of their prospective sub-bidders with the information contained in any addenda.
- 3.5 Duplicate proposals shall be sealed and submitted in an opaque envelope, clearly marked "PROPOSAL FOR WORK CATEGORY NO. _____", and shall be identified with the Project Name and the Bidder's name and address.
- 3.6 Proposals for this phase of the work will be received at the time and place indicated in the "Advertisement for Bids".
- 3.7 An award of Contracts: Each Work Category or combination of Work Categories will be awarded based on the dollar value of the proposal, qualifications of the Contractor, his ability to perform the work, and in the best interest of the Owner.

ARTICLE 4, EXAMINATION OF THE SITE

- 4.1 Each Bidder shall carefully examine the site of the project and surrounding territory; the means of approach to the site, and the structure of the ground, and make all necessary investigations required to inform himself thoroughly and fully as to facilities for delivering, storing, placing and handling of materials and equipment, and to inform himself fully as to all difficulties that may be encountered in the complete execution of all work in accordance with the Contract Documents.
- 4.2 Should a bidder find apparent discrepancies in, or omission from the Contract Documents, or should he be in doubt as to their true meaning, or should he have any questions regarding any work or material intended, then such Bidder, either Trade Contractor or Trade Subcontractor, shall submit to the Architect, through the Construction Manager, a written request for an interpretation thereof. The person submitting the request shall be responsible for its prompt delivery and such request must be delivered to the Architect by the Construction Manager at least five days before the opening of proposals.
- 4.3 Any verbal information obtained from, or statements made by a representative of the Owner, Architect, or the Construction Manager at the time of examination of the Contract Documents or Site shall not be construed as in any way amending the Contract Documents. Only such corrections or addenda as are issued in writing to all Bidders shall become a part of the Contract. Neither the Owner, the Architect, nor the Construction Manager shall be responsible for verbal instructions.

ARTICLE 5, MODIFICATION OR WITHDRAWAL OF BID

- 5.1 Bids submitted prior to the time and date designated for receipt of Bids may be modified or withdrawn only by notice to the party receiving Bids. Such notice shall be in writing over the signature of the Bidder, and must be received prior to date and time set for receipt of Bids.

Any modification shall be so worded as not to reveal the amount of the original Bid.

ARTICLE 6, REJECTION OF BIDS

- 6.1 The Bidder acknowledges the right of the Construction Manager, Architect, and Owner to reject any or all bids, and to waive any informality or irregularity in any bid received, or to accept any bid which in the opinion of the Construction Manager, Architect, and Owner shall serve their best interests. In addition, the Bidder recognizes the right of the Construction Manager, Architect, and Owner to reject a bid if the Bidder failed to submit on the date and time required by the bidding documents, or if the bid is in any way incomplete or irregular, including a bid security, if required, is not received with the bid proposal.

ARTICLE 7, PERFORMANCE CO-OBLIGEE BOND AND LABOR & MATERIAL PAYMENT CO-OBLIGEE BOND OWNER AND CONSTRUCTION MANAGER

- 7.1 The Construction Manager may, prior to the execution of the Contract, require the successful Bidders to furnish Co-obligee bonds, written in favor of the Owner and the Construction Manager, covering the faithful performance of the Contract and the payment of all obligations arising thereunder in an acceptable form to the Owner and the Construction Manager, and with such sureties secured through the Bidder's usual sources as long as the surety is licensed to do business in the State of Michigan and holds a minimum "A.M. Best" rating of A. Bonds shall be in the amount of 100% of the Contract sum. The premium for such bonds shall be paid by the Bidder. A space has been provided on the Proposal Form for the Bidders to indicate the amount that shall be deducted from their proposals if Bonds are not required. Should they be required, the Bidder shall deliver the bonds to the Construction Manager not later than the date of execution of the Contract.
- 7.2 The Bidder shall require the attorney-in-fact who executes the bonds on behalf of the surety, to affix thereto a certified and current copy of his power of attorney indicating the monetary limit of such power.

ARTICLE 8, VARIATIONS FROM MATERIALS SPECIFIED

- 8.1 Wherever materials are specified using names of specific manufacturers, the purpose is to establish a standard of quality and design, and not to limit competition. Contractors desiring to use materials of manufacturers other than those specified, shall indicate such material, manufacturer, and change of price, if any, in the space provided under the heading "Variations from Materials Specified" on the Proposal Forms. BASE BID PROPOSALS SHALL INCLUDE ONLY MATERIALS SPECIFIED. Variations, if accepted, shall be incorporated in the Contract, and the Contract Price adjusted accordingly, and no other materials shall be allowed except upon written authorization of the Architect, Construction Manager, and Owner.

ARTICLE 9, THE CONTRACT FORM

- 9.1 Unless otherwise provided in the Bidding Documents, the Agreement for the Work shall be

between the Trade Contractor and the Construction Manager on the contract form referenced in the Standard form section of the Project Manual (Ingham ISD, Purchasing subcontract agreement).

ARTICLE 10. TIME OF COMPLETION

- 10.1 Each Bidder, as evidenced by submitting a proposal, shall agree to abide by the construction schedule dates as indicated in the Contract Documents, as developed during the post bid interview, scheduling meetings, and as required by Construction Manager. **The completion schedule for this project shall be met without exceptions.**

ARTICLE 11. QUALIFICATION OF BIDDER

- 11.1 The Owner, Architect, and Construction Manager may make such investigations as they deem necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish all such information and data for this purpose as the Construction Manager may request within 24 hours, including a list of projects completed, a financial statement, organization of the firm, etc. The Owner reserves the right, based on the advice of the Construction Manager and Architect, to reject any bid if the evidence submitted by, or investigation of such Bidder fails to prove that such Bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

ARTICLE 12. TAXES AND CONTRIBUTIONS

- 12.1 It is understood that the bid prices stated shall include all applicable Federal, State or other Governmental Division taxes and assessments. Also, all contributions for unemployment compensation, health and welfare, old age benefits or other purposes now or hereafter effective during the term of the contract, and the Owner and Construction Manager shall not be liable for any additional charges therefore.

ARTICLE 13. WARRANTY

- 13.1 All work shall be guaranteed for a period of at least one (1) year and/or as more specifically stated in the contract documents after final payment but not earlier than substantial completion as determined by the Architect, and all service within that period shall be rendered without charge to the Owner.

END OF SECTION

00201 - The Construction Manager will be located at Capital Area Career Center Room 605/606 611 Hagadorn Road, Mason, Michigan 48854 for questions regarding this Bid Package. Any questions regarding information contained in this Project Manual must be forwarded in written form via email to **Sam Ruegsegger** at sam.ruegsegger@christmanco.com. Answers to bidding requests for information will be answered in an addendum. Under no circumstances should any prospective bidder call the Owner or Architect for clarification of the Bidding Documents.

00202 - AIA CONTRACT FORMS

Sample AIA Documents are available for review and reference in the Construction Manager's Main Office.

00203 - AIA STANDARD FORM FOR GENERAL CONDITIONS

AIA Document A201\2007, "General Conditions of the Contract for Construction as modified for this project," is available for review at the Construction Managers Main Office.

00204 - GEOTECHNICAL INVESTIGATION

1. Not applicable to work.

00205 - PRELIMINARY CONSTRUCTION SCHEDULE NARRATIVE

1. Time is of the essence on this project. The Project sequencing will be scheduled by the Construction Manager and must be adhered to by all Trade Contractors. Time, labor, material, equipment and possible cost implication of this sequencing and others not fully conceived or described prior to the time of bidding, shall be included in base bid.

A preliminary schedule is included for reference only. It is emphasized that start dates for work may shift. The bidder shall familiarize himself with expected maximum durations and shall include in his proposal sufficient manpower to meet these requirements. All milestone dates are approximate and are to be used as guidelines for the Trade Contractor's basis for bid.

2. The project will start June 10, 2013 and adhere to the following milestones. There is the potential to start work in May 2013 in Culinary Arts and the Boiler Room on an afternoon/evening shift. Details will be discussed with the each successful bidder.

Activity Description	Start Date	Completion Date
Release of bidding documents	2.19.13	
Bidding Period	2.19.13	3.19.13
Post Bid Interviews	3.20.13	3.26.13
CM Recommendation to IISD	3.29.13	
IISD Approval	4.10.13	

Trade Contracts Released from CM	4.10.13	
Shop Drawing submittal timeline from Tradecontractors	4.15.13	4.29.13
First Day of Construction	6.10.13	
Owner Furniture & Equipment Move In	8.19.13	8.23.13
Substantial Completion	8.23.13	
Teacher Report Back to Work	8.26.13	
Final Completion	8.30.13	
First Day of School	9.3.13	

3. It is the Trade Contractor's responsibility to establish which items of work within the scope of his work category will be affected by the Owner's or other Trade Contractors operations and coordinate and schedule completion of his work accordingly at no cost to the Owner.

00206 – DAVIS BACON / PREVAILING WAGE

1. Multiple funding sources are utilized for this project; thus Davis Bacon and Prevailing Wage sheets are included within this section. It is the responsibility of the Trade Contractor to record and upload payroll reports through The Christman Company's Trade Contractor portal for compliance. In addition, for the category of work that is applicable, the higher cost category of the two reports (Davis Bacon or Prevailing Wage) must be included in your proposal. This will be discussed and recorded at the post bid interview and will be a compliance item for payment.

00207 – BUY AMERICAN

1. The construction, alteration, maintenance or repair must follow the Buy American provision which states that all iron, steel, and manufactured good used are produced in the United States unless one of three listed exceptions applies:
 - i. Non-availability of product
 - ii. Unreasonable Cost
 - iii. Inconsistent with Public InterestIf any of these conditions apply, a waiver must be requested.

END OF SECTION 00200



RICK. SNYDER
GOVERNOR



STATE OF MICHIGAN

Prevailing Wages
PO Box 30476
Lansing, MI 48909
517-322-1825

Informational Sheet: Prevailing Wages on State Projects

REQUIREMENTS OF THE PREVAILING WAGES ON STATE PROJECTS ACT, PUBLIC ACT 166 OF 1965

The State of Michigan determines prevailing rates pursuant to the Prevailing Wages on State Projects Act, Public Act 166 of 1965, as amended. The purpose of establishing prevailing rates is to provide minimum rates of pay that must be paid to workers on construction projects for which the state or a school district is the contracting agent and which is financed or financially supported by the state. By law, prevailing rates are compiled from the rates contained in collectively bargained agreements which cover the locations of the state projects. The official 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. Prevailing wage is satisfied when wages plus fringe benefits paid to a worker are equal to or greater than the required rate.

State of Michigan responsibilities under the law:

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

Contracting agent responsibilities under the law:

- 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 agent.
- 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.
- The contracting agent, by written notice to the contractor and the sureties of the contractor known to the contracting agent, may terminate the contractor's right to proceed with that part of the contract, for which less than the prevailing rates have been or will be paid, and may proceed to complete the contract by separate agreement with another contractor or otherwise, and the original contractor and his sureties shall be liable to the contracting agent for any excess costs occasioned thereby.

Contractor responsibilities under the law:

- 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 employed by him in connection including certified payroll, as used in the industry, with said contract. This record shall be available for reasonable inspection by the contracting agent or the department.
- Each contractor or subcontractor is separately 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.
- The prime contractor is secondarily liable for payment of prevailing rates that are not paid by a subcontractor.
- 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 state 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 Section 5 of Act 166, the investigation will be concluded and a referral to the Office of Attorney General for civil action will be made. The Office of Attorney General will pursue costs and fees associated with a lawsuit if filing is necessary to obtain records.



RICK. SNYDER
GOVERNOR

STATE OF MICHIGAN

Prevailing Wages
PO Box 30476
Lansing, MI 48909
517-322-1825



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 =	\$0.18
Vision insurance	\$5.38 monthly premium X 12 mos. = \$64.56/2080 =	\$0.03
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 =	\$0.16
Tuition	\$500.00 annual cost/2080 =	\$0.24
Bonus	4 quarterly bonus/year x \$250 = \$1000.00/2080 =	\$0.48
401k Employer Contribution	\$2000.00 total annual contribution/2080 =	\$0.96
Total Hourly Credit		<u>\$3.65</u>

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
 DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
 MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 MARTHA B. YODER
 DIRECTOR

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		4	8	9
9th Hour	1	5		
10th Hour	2	6		
Over 10 hours	3	7		

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 *can not* 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.

XXXHHHHDY - 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.

LARA is an equal opportunity employer.
 Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

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

WHPWRequest@michigan.gov

Official Request #: 143

Requestor: Ingham Intermediate School District

Project Description: Capital Area Career Center - Interior Renovations

Project Number:

Ingham County

Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

Contract must be awarded by: 5/15/2013

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<u>Classification</u>			Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description						
Asbestos & Lead Abatement Laborer							
Asbestos & Lead Abatement Laborer		MLDC	10/23/2012	\$38.85	\$51.87	\$64.89	H H H X X X D Y
4 ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days							
Asbestos & Lead Abatement, Hazardous Material Handler							
Asbestos and Lead Abatement, Hazardous Material Handler		AS207	10/23/2012	\$38.85	\$52.00	\$65.15	H H H X X X D Y
4 ten hour days @ straight time allowed Monday-Saturday,							
Boilermaker							
Boilermaker		BO169	8/14/2009	\$54.70	\$81.08	\$107.45	H H H H H H D Y
Apprentice Rates:							
	1st 6 months			\$40.31	\$59.49	\$78.67	
	2nd 6 months			\$41.45	\$61.21	\$80.95	
	3rd 6 months			\$42.57	\$62.88	\$83.19	
	4th 6 months			\$43.69	\$64.57	\$85.43	
	5th 6 months			\$44.81	\$66.24	\$87.67	
	6th 6 months			\$49.53	\$73.40	\$97.26	
	7th 6 months			\$49.32	\$73.01	\$96.69	
	8th 6 months			\$51.58	\$76.40	\$101.21	

Official Request #: 143

Requestor: Ingham Intermediate School District

Project Description: Capital Area Career Center - Interior Renovations

Project Number:

County: Ingham

Official Rate Schedule

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Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Bricklayer					
Brick, stone, artificial, cement masonry, pointing, caulking & BR9-31 cleaning	8/23/2010	\$42.88	\$60.75	\$78.61	H H H X H H H D Y
Apprentice Rates:					
0-749 hours		\$32.07	\$44.54	\$56.99	
750-1,499 hours		\$33.42	\$46.56	\$59.69	
1,500-2,249 hours		\$34.77	\$48.58	\$62.39	
2,250-2,999 hours		\$36.12	\$50.61	\$65.09	
3,000-3,749 hours		\$37.48	\$52.65	\$67.81	
3,750-4,499 hours		\$38.83	\$54.68	\$70.51	
4,500 - 5,249 hours		\$40.18	\$56.70	\$73.21	
5,250 - 6,000 hours		\$41.53	\$58.72	\$75.91	
Carpenter					
Floor layer	CA1004FL 11/1/2012	\$36.26	\$46.28	\$56.30	H H H H H H H D N
Apprentice Rates:					
1st Year		\$28.24	\$34.25	\$40.26	
2nd Year		\$30.25	\$37.26	\$44.28	
3rd Year		\$32.25	\$40.26	\$48.28	
4th Year		\$33.25	\$41.76	\$50.28	
Carpenter	CA1004L 10/25/2012	\$40.27	\$52.26	\$64.24	X X H H H H H D Y
Apprentice Rates:					
1st Year		\$30.68	\$37.87	\$45.06	
2nd Year		\$33.08	\$41.47	\$49.86	
3rd Year		\$35.48	\$45.07	\$54.66	
4th Year		\$36.67	\$46.86	\$57.04	
Cement Mason					
Cement Mason	PL16-7 10/23/2012	\$37.52	\$49.84	\$62.16	H H H H H H H D Y
Four 10s allowed Monday-Thursday with Friday or Saturday inclement weather make up days. Saturday hours for inclement weather make up shall be paid straight rate unless over 40 hours worked.					
Apprentice Rates:					
1st year		\$28.90	\$36.91	\$44.92	
2nd year		\$31.36	\$40.60	\$49.84	
3rd year		\$33.82	\$44.29	\$54.76	

Official Request #: 143

Requestor: Ingham Intermediate School District

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Project Number:

County: Ingham

Official Rate Schedule

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Official 2013 Prevailing Wage Rates for State Funded Projects

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<u>Classification</u>	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Drywall	Drywall Taper and Finisher	PT-845-DF	10/6/2009	\$35.42	\$47.42	\$59.42	H H H H H H D N
Apprentice Rates:							
0 - 1,000 hours				\$24.62	\$31.22	\$37.82	
1,001 - 2,000 hours				\$25.82	\$33.02	\$40.22	
2,001 to 3,000 hours				\$27.74	\$35.90	\$44.06	
3,001 to 4,000 hours				\$29.42	\$38.42	\$47.42	
4,001 to 5,000 hours				\$31.82	\$42.02	\$52.22	
5,001 to 6,000 hours				\$34.22	\$45.62	\$57.02	
Electrician	Road Way Electrical Work	EC-17	5/31/2012	\$49.55	\$71.93	\$94.30	H H H H H H D Y
Double time due after 16 hours on any calendar day and all hours Sunday.							
Apprentice Rates:							
1st 6 months				\$31.65	\$45.07	\$58.49	
2nd 6 months				\$33.88	\$48.42	\$62.96	
3rd 6 months				\$36.13	\$51.79	\$67.46	
4th 6 months				\$38.35	\$55.13	\$71.90	
5th 6 months				\$40.58	\$58.47	\$76.36	
6th 6 months				\$45.06	\$65.19	\$85.32	
Inside wireman		EC-252-IW	11/16/2012	\$59.16	\$79.92	\$100.68	H H D H D D D D N
Apprentice Rates:							
1st Period				\$33.71	\$41.75	\$49.78	
2nd Period				\$38.39	\$48.77	\$59.14	
3rd Period				\$42.54	\$54.99	\$67.44	
4th Period				\$46.70	\$61.24	\$75.76	
5th Period				\$50.86	\$67.47	\$84.08	
6th Period				\$55.00	\$73.69	\$92.36	
<u>Subdivision of county</u>	Townships of Onondaga, Leslie, Stockbridge and Bunker Hill ONLY.						

Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
 Project Number:
 County: Ingham

Official Rate Schedule
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Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

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<u>Classification</u> Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Sound and Communications Installer/Technician	EC-252-SC 11/16/2012	\$38.74	\$52.04	\$65.33	H H D H D D D D N
Apprentice Rates:					
Period 1		\$21.76	\$28.40	\$35.05	
Period 2		\$23.09	\$30.40	\$37.71	
Period 3		\$24.43	\$32.41	\$40.39	
Period 4		\$25.76	\$34.41	\$43.05	
Period 5		\$30.77	\$40.08	\$49.39	
Period 6		\$33.43	\$44.08	\$54.72	
Period 7		\$36.08	\$48.05	\$60.01	
Period 8		\$37.42	\$50.06	\$62.69	
<u>Subdivision of county</u> Onondaga, Leslie, Stockbridge & Bunker Hill townships					
Inside Wireman	EC-665-IW 11/3/2011	\$49.29	\$65.30	\$81.30	H H D H H H D D Y
A four day schedule of ten hours a day is allowed Monday thru Friday.					
Apprentice Rates:					
0-1000 hours		\$28.28	\$36.29	\$44.28	
1000-2000 hours		\$29.88	\$38.67	\$47.48	
2000-3500 hours		\$31.49	\$41.09	\$50.69	
3500-5000 hours		\$34.74	\$45.14	\$55.54	
5000-6500 hours		\$36.35	\$47.55	\$58.75	
6500-8000 hours		\$37.95	\$49.95	\$61.94	
<u>Subdivision of county</u> Lansing, Meridian, Williamston, Locke, Delhi, Alaiedon, Wheatfield, Leroy, Aurelius, Vevay, Ingham, & White Oak townships					
Sound and Communication Journeyman	EC-665-SD 11/3/2011	\$38.01	\$49.97	\$61.93	H H D H H H D D Y
A four day schedule of ten hours a day is allowed Monday thru Friday.					
Apprentice Rates:					
1st period		\$22.25	\$28.44	\$34.66	
2nd period		\$23.83	\$30.66	\$37.48	
3rd period		\$25.40	\$32.85	\$40.30	
4th period		\$26.97	\$35.05	\$43.11	
5th period		\$28.56	\$37.25	\$45.95	
6th period		\$30.12	\$39.44	\$48.75	
<u>Subdivision of county</u> Lansing, Meridian, Williamston, Locke, Delhi, Alaiedon, Wheatfield, Leroy, Aurelius, Vevay, Ingham and White townships					

Official Request #: 143

Requestor: Ingham Intermediate School District

Project Description: Capital Area Career Center - Interior Renovations

Project Number:

County: Ingham

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

Contract must be awarded by: 5/15/2013

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Lineman/Technician outside utility and commercial power and high voltage pipe type cable work and electrical underground.	EC-876 11/18/2009	\$47.05	\$68.11	\$89.17	H H H H H H D Y

Four 10s allowed Monday-Thursday with Friday makeup or Tuesday-Friday with Monday makeup.

Apprentice Rates:

1st period	\$30.20	\$42.69	\$55.26
2nd period	\$32.32	\$46.02	\$59.70
3rd period	\$34.42	\$49.16	\$63.90
4th period	\$36.53	\$52.33	\$68.12
5th period	\$38.63	\$55.47	\$72.32
6th period	\$40.74	\$58.64	\$76.54
7th period	\$42.84	\$61.79	\$80.74

Subdivision of county Alaiedon, Aurelius, Bunker Hill, Delhi, Ingham, Lansing, Leslie, Meridan, Onondago, Stockbridge, & Vevay townships

Elevator Constructor

Elevator Constructor Mechanic	EL-85 1/12/2011	\$65.80	\$109.78	D D D D D D D Y
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Apprentice Rates:

1st year	\$46.01	\$70.20
2nd year	\$50.41	\$79.00
3rd year	\$52.61	\$83.40
4th year	\$57.00	\$92.18

Glazier

Glazier	GL-826 2/18/2011	\$41.62	\$55.84	\$70.05	H H H H D D D D Y
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Apprentice Rates:

1st 6 months	\$30.25	\$38.78	\$47.31
2nd 6 months	\$31.67	\$40.91	\$50.15
3rd 6 months	\$33.09	\$43.04	\$52.99
4th 6 months	\$34.51	\$45.17	\$55.83
5th 6 months	\$35.93	\$47.30	\$58.67
6th 6 months	\$37.36	\$49.45	\$61.53
7th 6 months	\$38.78	\$51.57	\$64.37
8th 6 months	\$40.20	\$53.71	\$67.21

Heat and Frost Insulator

Spray Insulation	AS25S 3/5/2007	\$20.14	\$29.14	H H H H H H H N
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Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
 Project Number:
 County: Statewide

Official Rate Schedule
 Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

Contract must be awarded by: 5/15/2013

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Heat and Frost Insulator and Asbestos Worker

Heat and Frost Insulator and Asbestos Worker	AS47		\$44.15	\$58.39	\$72.62 H H H H H H D Y
4 ten hour work days shall be either Monday thru Thursday or Tuesday thru Friday		8/5/2011			

Apprentice Rates:

1st year		\$25.66	\$32.78	\$39.90
2nd year		\$29.35	\$37.89	\$46.43
3rd year		\$33.05	\$43.02	\$52.98
4th year		\$36.75	\$48.14	\$59.53
5th year		\$40.45	\$53.26	\$66.07

Ironworker

Siding, Glazing, Curtain Wall	IR-25-GZ2		\$43.36	\$55.02	\$66.68 H H H H H H D D Y
4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.		10/10/2011			

Apprentice Rates:

Level 1		\$27.03	\$33.64	\$40.23
Level 2		\$29.14	\$36.38	\$43.60
Level 3		\$31.26	\$39.13	\$46.99
Level 4		\$33.38	\$41.88	\$50.37
Level 5		\$35.49	\$44.62	\$53.75
Level 6		\$37.61	\$47.37	\$57.13

Pre-engineered Metal Work

	IR-25-PE-Z2		\$42.37	\$51.88	\$61.39 X X H X X X D Y
		5/9/2012			

Apprentice Rates:

1st Year		\$24.56	\$30.05	\$35.53
3rd 6 month period		\$26.68	\$32.91	\$39.15
4th 6 month period		\$28.81	\$35.80	\$42.80
5th 6 month period		\$30.93	\$38.68	\$46.42
6th 6 month period		\$33.06	\$41.56	\$50.06

Official Request #: 143
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 County: Ingham

Official Rate Schedule
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Official 2013 Prevailing Wage Rates for State Funded Projects

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Reinforced Iron Work	IR-25-RF 10/10/2011	\$52.36	\$74.85	\$97.34	H H D H D D D D N
Apprentice Rates:					
Level 1		\$33.01	\$45.52	\$58.04	
Level 2		\$35.38	\$50.51	\$64.68	
Level 3		\$37.74	\$52.62	\$67.50	
Level 4		\$40.28	\$57.86	\$74.48	
Level 5		\$42.81	\$60.22	\$77.64	
Level 6		\$45.35	\$64.04	\$82.72	
Rigging Work	IR-25-RIG 10/10/2011	\$57.73	\$86.41	\$115.08	H H H H H H D N
Apprentice Rates:					
Level 1 & 2		\$33.28	\$49.67	\$66.05	
Level 3		\$36.11	\$53.92	\$71.71	
Level 4		\$38.93	\$58.14	\$77.35	
Level 5		\$41.76	\$62.39	\$83.01	
Level 6		\$44.59	\$66.63	\$88.67	
Decking 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-SD 10/10/2011	\$49.44	\$73.91	\$98.37	H H H H H H D D Y
Structural, ornamental, conveyor, welder and pre-cast 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-STR 10/10/2011	\$58.11	\$86.91	\$115.71	H H H H H H D D Y
Apprentice Rates:					
Levels 1 & 2		\$32.77	\$49.15	\$65.54	
Level 3		\$35.60	\$53.40	\$71.20	
Level 4		\$38.42	\$57.63	\$76.84	
Level 5		\$41.25	\$61.88	\$82.50	
Level 6		\$44.08	\$66.13	\$88.16	
Level 7		\$46.90	\$70.35	\$93.80	
Level 8		\$49.73	\$74.60	\$99.46	
Industrial Door erection & construction	IR-25-STR-D 10/10/2011	\$58.17	\$72.60	\$87.02	H H D H H H D D Y

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<u>Classification</u>	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name Description					
Fence, Sound Barrier & Guardrail erection/installation and Exterior Signage work	IR-340-F2 10/6/2011	\$28.30	\$38.30	\$48.30	X X H X X X H D Y

Four ten hour work days may be worked during Monday-Saturday.

Apprentice Rates:

60% Level	\$19.60	\$25.60	\$31.60
65% Level	\$20.69	\$27.19	\$33.69
70% Level	\$21.78	\$28.78	\$35.78
75% Level	\$22.86	\$30.36	\$37.86
80% Level	\$23.95	\$31.95	\$39.95
85% Level	\$25.04	\$33.54	\$42.04

Laborer

Journeyman - building and heavy construction craft laborer, portable concrete mixer operator, air, electric or gasoline tool operator, hot dope carrier, tar kettle tender, gasoline vibrators, concrete gas buggies, concrete saw, signal person and top person on sewer, caisson construction (open cut work), concrete shoveler, car pusher, and bottom person (on sewer work). Demolition laborer, 3" pumps & below, jobsite clean-up, deep cleaning, jackhammer operators, burner, crock layer, caisson worker, tunnel mucker and tunnel miner, welder, mason tender, mortar mixer, scaffold builder, forklift operator (masonry only), helper and tender on work customarily performed by laborers and all laborers working for masonry contractors and plasterer tenders.	L499L 10/26/2012	\$33.67	\$44.36	\$55.05	X X H X X H H D N
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Apprentice Rates:

0-1,000 hours	\$28.33	\$36.35	\$44.37
1,001-2,000 hours	\$29.39	\$37.94	\$46.49
2,001-3,000 hours	\$30.46	\$39.55	\$48.63
3,001-4,000 hours	\$32.60	\$42.75	\$52.91

Official Request #: 143

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Official Rate Schedule

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Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

Contract must be awarded by: 5/15/2013

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Classification Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Laborer - Hazardous

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 federal regulations; or a laborer performing work in conjunction with the removal, handling, or containment of hazardous waste substances when use of personal protective equipment level "D" is required.	LHAZ-Z6-A	10/21/2011	\$32.75	\$46.24	\$59.73	H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$27.97	\$39.07	\$50.17
1,001-2,000 work hours	\$28.92	\$40.50	\$52.07
2,001-3,000 work hours	\$29.88	\$41.94	\$53.99
3,001-4,000 work hours	\$31.79	\$44.81	\$57.81

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.	LHAZ-Z6-B	10/21/2011	\$33.75	\$47.74	\$61.73	H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$28.72	\$40.20	\$51.67
1,001-2,000 work hours	\$29.72	\$41.70	\$53.67
2,001-3,000 work hours	\$30.73	\$43.21	\$55.69
3,001-4,000 work hours	\$32.74	\$46.23	\$59.71

Laborer Underground - Tunnel, Shaft & Caisson

Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.	LAUCT-Z2-1	1/16/2013	\$34.72	\$45.94	\$57.15	H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$29.61	\$38.27	\$46.93
1,001-2,000 work hours	\$30.63	\$39.80	\$48.97
2,001-3,000 work hours	\$31.66	\$41.35	\$51.03
3,001-4,000 work hours	\$33.70	\$44.41	\$55.11

Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
 Project Number:
 County: Ingham

Official Rate Schedule
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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class II - Manhole, headwall, catch basin builder, bricklayer LAUCT-Z2-2 tender, mortar man, material mixer, fence erector, and guard rail builder	1/16/2013	\$34.81	\$46.07	\$57.33	H H H H H H D Y

Apprentice Rates:

0-1,000 work hours	\$29.68	\$38.37	\$47.07
1,001-2,000 work hours	\$30.71	\$39.92	\$49.13
2,001-3,000 work hours	\$31.73	\$41.45	\$51.17
3,001-4,000 work hours	\$33.78	\$44.53	\$55.27

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, concrete shoveler, conveyor man, floor man, gasoline and electric tool operator, gunnite man, grout operator, welder, heading dinky man, inside lock tender, pea gravel operator, pump man, outside lock tender, scaffold man, top signal man, switch man, track man, tugger man, utility man, vibrator man, winch operator, pipe jacking man, wagon drill and air track operator and concrete saw operator (under 40 h.p.).	LAUCT-Z2-3 1/16/2013	\$34.91	\$46.22	\$57.53	H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$29.75	\$38.48	\$47.21
1,001-2,000 work hours	\$30.79	\$40.04	\$49.29
2,001-3,000 work hours	\$31.82	\$41.59	\$51.35
3,001-4,000 work hours	\$33.88	\$44.67	\$55.47

Class IV - Tunnel, shaft and caisson mucker, bracer man, LAUCT-Z2-4 liner plate man, long haul dinky driver and well point man.	1/16/2013	\$35.07	\$46.46	\$57.85	H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$29.87	\$38.66	\$47.45
1,001-2,000 work hours	\$30.91	\$40.22	\$49.53
2,001-3,000 work hours	\$31.95	\$41.78	\$51.61
3,001-4,000 work hours	\$34.03	\$44.90	\$55.77

Class V - Tunnel, shaft and caisson miner, drill runner, LAUCT-Z2-5 keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)	1/16/2013	\$35.33	\$46.85	\$58.37	H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$30.07	\$38.96	\$47.85
1,001-2,000 work hours	\$31.12	\$40.53	\$49.95
2,001-3,000 work hours	\$32.17	\$42.11	\$52.05
3,001-4,000 work hours	\$34.28	\$45.27	\$56.27

Official Request #: 143

Requestor: Ingham Intermediate School District

Project Description: Capital Area Career Center - Interior Renovations

Project Number:

County: Ingham

Official Rate Schedule

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Official 2013 Prevailing Wage Rates for State Funded Projects

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<u>Classification</u> Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class VI - Dynamite man and powder man.	LAUCT-Z2-6 1/16/2013	\$35.64	\$47.32	\$58.99	H H H H H H D Y
Apprentice Rates:					
		0-1,000 work hours	\$30.30	\$39.31	\$48.31
		1,001-2,000 work hours	\$31.37	\$40.91	\$50.45
		2,001-3,000 work hours	\$32.44	\$42.51	\$52.59
		3,001-4,000 work hours	\$34.57	\$45.71	\$56.85
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.	LAUCT-Z2-7 1/16/2013	\$27.91	\$35.72	\$43.53	H H H H H H D Y
Apprentice Rates:					
		0-1,000 work hours	\$24.51	\$30.62	\$36.73
		1,001-2,000 work hours	\$25.19	\$31.64	\$38.09
		2,001-3,000 work hours	\$25.87	\$32.66	\$39.45
		3,001-4,000 work hours	\$27.23	\$34.70	\$42.17
Landscape Laborer					
Landscape Specialist includes air, gas, and diesel equipment operator, skidsteer (or equivalent), lawn sprinkler installer on landscaping work where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintenance of landscape projects occurs. Sundays paid at time & one half. Holidays paid at double time.	LLAN-Z2-A 10/23/2012	\$26.75	\$36.96	\$47.17	X X H X X X H D Y
Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, material mover, truck driver on when seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs. Sundays paid at time & one half. Holidays paid at double time.	LLAN-Z2-B 10/23/2012	\$22.55	\$30.66	\$38.77	X X H X X X H D Y
Landscape Laborer: seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs. Sundays paid at time & one half. Holidays paid at double time.	LLAN-Z2-C 10/23/2012	\$14.35	\$21.53	\$28.70	X X H X X X H D Y

Official Request #: 143
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<u>Classification</u>	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name Description					

Operating Engineer

Class C- Regular equipment operator, crane, stiff leg derrick, scraper dozer, grader, front end loader, hoist, job mechanic, head grease man, concrete pump truck and hydro excavators	EN-324-BH2C	10/23/2012	\$47.95	\$61.77	\$75.59	H H H H H H H D Y
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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.

Apprentice Rates:

0 - 999 hours	\$39.06	\$48.73	\$58.41
1,000 - 1,999 hours	\$40.44	\$50.81	\$61.17
2,000 - 2,999 hours	\$41.82	\$52.87	\$63.93
3,000 - 3,999 hours	\$43.20	\$54.95	\$66.69
4,000 - 4,999 hours	\$44.59	\$57.03	\$69.47
5,000 - 5,999 hours	\$45.97	\$59.10	\$72.23

Class D- Air tugger (single drum), material hoist, boiler operator, sweeping machine, winch truck, Bob Cat and similar equipment, elevators (when operated by an operating engineer), and fork truck over 20' lift	EN-324-BH2D	10/23/2012	\$43.15	\$54.57	\$65.99	H H H H H H H D Y
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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.

Class E- Pump 6" or over, well points, freeze systems, boom truck (non-swinging), end dumps and laser/power screed, concrete wire saw 20 h.p. and over and brokk concrete breaker	EN-324-BH2E	10/23/2012	\$42.55	\$53.67	\$64.79	H H H H H H H D Y
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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.

Class F- Air compressor, welder, generators, conveyors, pumps under 6", Grease man, and fork truck 20' or less lift	EN-324-BH2F	10/23/2012	\$40.10	\$50.00	\$59.89	H H H H H H H D Y
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Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather,

Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
 Project Number:
 County: Ingham

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<u>Classification</u> Name Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class G- Oiler, fireman and heater operator	EN-324-BH2G	10/23/2012	\$38.40	\$47.45	\$56.49	H H H H H H D Y
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.						
Class A- Crane w/ main Boom & Jib 220' or longer	EN-OSA	10/23/2012	\$49.30	\$63.80	\$78.29	H H H H H H D Y
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.						
Class A- Crane w/ main Boom & Jib 300' or longer	EN-OSA3	10/23/2012	\$50.80	\$66.05	\$81.29	H H H H H H D Y
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.						
Class A- Crane w/ main Boom & Jib 400' or longer	EN-OSA4	10/23/2012	\$52.30	\$68.30	\$84.29	H H H H H H D Y
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.						
Class B- Crane Operator with main boom and jib 140' or longer, tower cranes, gantry crane, whirley derrick	EN-OSB	10/23/2012	\$49.05	\$63.42	\$77.79	H H H H H H D Y
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.						
Operating Engineer - Marine Construction						
Diver/Wet Tender, Engineer (hydraulic dredge)	GLF-1	1/12/2011	\$59.91	\$78.51	\$97.11	X X H H H H D Y
Holiday pay= \$115.71 per hour, wages & fringes						
<u>Subdivision of county</u> all Great Lakes, islands therein, & connecting & tributary waters						
Crane/Backhoe Operator, 70 ton or over Tug Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender	GLF-2	1/12/2011	\$58.41	\$76.26	\$94.11	X X H H H H D Y
Holiday pay = \$111.96 per hour, wages & fringes						

Official Request #: 143
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 Project Description: Capital Area Career Center - Interior Renovations
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 County: Statewide

Official Rate Schedule
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<u>Classification</u>	Last	Straight	Time and	Double	Overtime
Name Description	Updated	Hourly	a Half	Time	Provision

Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters

Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs or more), Tug/Launch Operator, Loader, Dozer on Barge, Deck Machinery	GLF-3	1/12/2011	\$54.51	\$70.41	\$86.31	X X H H H H H D Y
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Holiday pay = \$102.21 per hour, wages & fringes

Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters

Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Off Road Trucks, Deck Hand, Tug Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe 115,000 lbs or less, Assistant Tug Operator	GLF-4	1/12/2011	\$49.16	\$62.39	\$75.61	X X H H H H H D Y
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Holiday pay = \$88.83 per hour, wages & fringes

Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters

Operating Engineer Hazardous Waste Class I

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection.	EN-324-HWCI-Z2A	1/20/2012	\$50.13	\$65.29	\$80.45	H H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Apprentice Rates:

1st 6 months	\$40.44	\$51.06	\$61.67
2nd 6 months	\$41.96	\$53.34	\$64.71
3rd 6 months	\$43.48	\$55.62	\$67.75
4th 6 months	\$44.98	\$57.87	\$70.75
5th 6 months	\$46.50	\$60.15	\$73.79
6th 6 months	\$48.02	\$62.43	\$76.83

Official Request #: 143
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 County: Ingham

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Level B & C protection. B - Pressure demand, full face SCBAEN-324-HWCI-Z2B or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	1/23/2012	\$49.18	\$63.87	\$78.55	H H H H H H D Y

Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Apprentice Rates:

1st 6 months	\$39.77	\$50.05	\$60.33
2nd 6 months	\$41.24	\$52.26	\$63.27
3rd 6 months	\$42.70	\$54.44	\$66.19
4th 6 months	\$44.18	\$56.66	\$69.15
5th 6 months	\$45.65	\$58.87	\$72.09
6th 6 months	\$47.11	\$61.06	\$75.01

Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCI-Z2D 1/23/2012	\$47.88	\$61.92	\$75.95	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Apprentice Rates:

1st 6 months	\$38.86	\$48.69	\$58.51
2nd 6 months	\$40.27	\$50.80	\$61.33
3rd 6 months	\$41.67	\$52.91	\$64.13
4th 6 months	\$43.07	\$55.00	\$66.93
5th 6 months	\$44.48	\$57.12	\$69.75
6th 6 months	\$45.88	\$59.21	\$72.55

Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCI-Z2DCL 1/23/2012	\$47.63	\$61.54	\$75.45	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Apprentice Rates:

1st 6 months	\$38.68	\$48.42	\$58.15
2nd 6 months	\$40.07	\$50.50	\$60.93
3rd 6 months	\$41.46	\$52.58	\$63.71
4th 6 months	\$42.85	\$54.67	\$66.49
5th 6 months	\$44.25	\$56.78	\$69.29
6th 6 months	\$45.64	\$58.86	\$72.07

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Classification	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description				

Operating Engineer Hazardous Waste Class II

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection.	EN-324-HWCII-Z2A 1/20/2012	\$45.73	\$58.69	\$71.65	H H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWCII-Z2B 1/23/2012	\$44.79	\$57.28	\$69.77	H H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z2D 1/23/2012	\$43.49	\$55.33	\$67.17	H H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z2DCL 1/23/2012	\$43.24	\$54.96	\$66.67	H H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 140' or longer

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection.	EN-324-HW140-Z2A 1/20/2012	\$52.78	\$69.27	\$85.75	H H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
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Official Rate Schedule
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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Level B & C protection. B - Pressure demand, full face SCBAEN-324-HW140-Z2B or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	1/23/2012	\$51.72	\$67.68	\$83.63	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	1/23/2012	\$50.53	\$65.89	\$81.25	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	1/23/2012	\$50.28	\$65.52	\$80.75	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 220' or longer

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection.	1/20/2012	\$53.08	\$69.72	\$86.35	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level B & C protection. B - Pressure demand, full face SCBAEN-324-HW220-Z2B or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	1/23/2012	\$52.04	\$68.16	\$84.27	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	1/23/2012	\$50.83	\$66.34	\$81.85	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
 Project Number:
 County: Ingham

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Classification	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description				

Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW220-Z2DCL 1/23/2012	\$50.58	\$65.97	\$81.35	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with boom

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection.	EN-324-HWRC-Z2A 1/20/2012	\$51.10	\$66.75	\$82.39	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with Boom Operator

Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWRC-Z2B 1/23/2012	\$50.15	\$65.32	\$80.49	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWRC-Z2D 1/23/2012	\$48.85	\$63.37	\$77.89	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWRC-Z2DCL 1/23/2012	\$48.60	\$63.00	\$77.39	H H H H H H D Y
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Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.

Operating Engineer Steel Work

Forklift, 1 Drum Hoist	EN-324-ef 6/4/2012	\$55.56	\$73.30	\$91.03	H H D H H H D Y
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Official Request #: 143
 Requestor: Ingham Intermediate School District
 Project Description: Capital Area Career Center - Interior Renovations
 Project Number:
 County: Ingham

Official Rate Schedule
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Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

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<u>Classification</u> Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Crane w/ 120' boom or longer	EN-324-SW120 6/4/2012	\$58.26	\$77.35	\$96.43	H H D H H H D D Y
Crane w/ 120' boom or longer w/ Oiler	EN-324-SW120-O 10/12/2011	\$59.26	\$78.85	\$98.43	H H D H H H D D Y
Crane w/ 140' boom or longer	EN-324-SW140 6/5/2012	\$59.44	\$79.12	\$98.79	H H D H H H D D Y
Crane w/ 140' boom or longer W/ Oiler	EN-324-SW140-O 6/5/2012	\$60.44	\$80.62	\$100.79	H H D H H H D D Y
Boom & Jib 220' or longer	EN-324-SW220 6/5/2012	\$59.71	\$79.52	\$99.33	H H D H H H D D Y
Crane w/ 220' boom or longer w/ Oiler	EN-324-SW220-O 6/5/2012	\$60.71	\$81.02	\$101.33	H H D H H H D D Y
Boom & Jib 300' or longer	EN-324-SW300 6/5/2012	\$61.21	\$81.77	\$102.33	H H D H H H D D Y
Crane w/ 300' boom or longer w/ Oiler	EN-324-SW300-O 6/5/2012	\$62.21	\$83.27	\$104.33	H H D H H H D D Y
Boom & Jib 400' or longer	EN-324-SW400 6/5/2012	\$62.71	\$84.02	\$105.33	H H D H H H D D Y
Crane w/ 400' boom or longer w/ Oiler	EN-324-SW400-O 6/5/2012	\$63.71	\$85.52	\$107.33	H H D H H H D D Y
Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator	EN-324-SWCO 1/11/2013	\$57.90	\$76.81	\$95.71	H H D H H H D D Y
Apprentice Rates:					
	0-999 hours	\$45.96	\$59.20	\$72.44	
	1,000-1,999 hours	\$47.85	\$62.03	\$76.21	
	2,000-2,999 hours	\$49.74	\$64.86	\$79.98	
	3,000-3,999 hours	\$51.63	\$67.70	\$83.78	
	4,000-4,999 hours	\$53.52	\$70.53	\$87.55	
	5,000 hours	\$55.42	\$73.39	\$91.35	
Crane w/ Oiler	EN-324-SWCO-O 6/4/2012	\$58.90	\$78.31	\$97.71	H H D H H H D D Y

Official Request #: 143
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Issue Date: 2/14/2013

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Compressor or Welder Operator	EN-324-SWCW 6/4/2012	\$50.45	\$65.63	\$80.81	H H D H H H D D Y
Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe	EN-324-SWHO 6/4/2012	\$57.26	\$75.85	\$94.43	H H D H H H D D Y
Oiler	EN-324-SWO 6/4/2012	\$49.04	\$63.52	\$77.99	H H D H H H D D Y
Tower Crane & Derrick where work is 50' or more above first level	EN-324-SWTD50 10/12/2011	\$58.99	\$78.44	\$97.89	H H D H H H D D Y
Tower Crane & Derrick 50' or more w/ Oiler where work station is 50' or more above first level	EN-324-SWTD50-O 10/12/2011	\$59.99	\$79.94	\$99.89	H H D H H H D D Y

Operating Engineer Underground

Class I Equipment - Backfiller Tamper, Backhoe, Batch Plant Operator, Clamshell, Concrete Paver 2 drums or larger, Conveyor Loader Euclid type, Crane (crawler, truck type or pile driving), Dozer, Dragline, Elevating Grader, endloader, gradall, grader, hydro excavator, power shovel, roller asphalt, scraper self-propelled or tractor drawn, side boom tractor, slip form paver, slope paver, trencher over 8 ft. digging capacity, well drilling rig, concrete pump with boom operator	EN-324A2-UC1 1/16/2013	\$48.63	\$62.77	\$76.90	H H H H H H H D Y
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Apprentice Rates:

0-999 hours	\$38.70	\$48.42	\$58.14
1,000-1,999 hours	\$40.09	\$50.50	\$60.92
2,000-2,999 hours	\$41.48	\$52.59	\$63.70
3,000-3,999 hours	\$42.87	\$54.68	\$66.48
4,000-4,999 hours	\$44.26	\$56.76	\$69.26
5,000-5,999 hours	\$45.64	\$58.83	\$72.02

Class II Equipment - Boom Truck, Crusher, Hoist, Pump 6 inch discharge or larger, side boom tractor, Tractor (pneumatically other than backhoe or front end loader), Trencher 8 ft. digging capacity and smaller, Vac Truck	EN-324A2-UC2 1/16/2013	\$43.74	\$55.43	\$67.12	H H H H H H H D Y
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Official Request #: 143

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Project Description: Capital Area Career Center - Interior Renovations

Project Number:

County: Ingham

Official Rate Schedule

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Official 2013 Prevailing Wage Rates for State Funded Projects

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class III Equipment - Air Compressors 600 cfm or larger, Air Compressors 2 or more less than 600 dfm, Boom Truck non-swinging non-powered type boom, Concrete Breaker self-propelled or truck mounted, Concrete paver 1 drum 1/2 yd. or larger, Elevator other than passenger, Pump 4 inch to 6 inch discharge, pumpcrete machine, wagon drill, welding machine or generator 2 or more 300 amp or larger	EN-324A2-UC3 1/16/2013	\$43.24	\$54.68	\$66.12	H H H H H H D Y
Class IV Equipment - Boiler, Concrete Saw 40 hp or over, curing machine self propelled, end dumps, extend a boom forklift, farm tractor with attachment, finishing machine concrete, firemen, hydraulic pipe pushing machine, mulching equipment, oiler, pumps up to 4 inch discharge, roller other than asphalt, stump remover, sweeper wayne type, trencher, vibrating compaction equipment self propelled 6 ft. wide or over, water wagon.	EN-324A2-UC4 1/16/2013	\$42.96	\$54.26	\$65.56	H H H H H H D Y
Painter Painter	PT-845-BR 10/6/2009	\$31.74	\$42.36	\$52.98	H H H H H H D Y
A 4-10s workweek allowed Monday-Thursday. Friday may be a make-up day if less than 40 were worked Mon-Thurs.					
Apprentice Rates:					
		0-1000 hours	\$22.18	\$28.02	\$33.86
		1001-2000 hours	\$23.24	\$29.61	\$35.98
		2001-3000 hours	\$24.94	\$32.16	\$39.38
		3001-4000 hours	\$26.43	\$34.40	\$42.36
		4001-5000 hours	\$28.55	\$37.58	\$46.60
		5001-6000 hours	\$30.68	\$40.77	\$50.86
Pipe and Manhole Rehab General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant	TM247 10/15/2012	\$27.20	\$36.70		H H H H H H H N
Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment	TM247-2 10/15/2012	\$31.70	\$43.45		H H H H H H H N
CCTV Technician/Combo Unit Operator: unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work	TM247-3 10/15/2012	\$30.45	\$41.57		H H H H H H H N

Official Request #: 143
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 Project Number:
 County: Statewide

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Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

Contract must be awarded by: 5/15/2013

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Boiler Operator: unit driver and operator of steam/water heater units and all ancillary equipment associated	TM247-4 10/15/2012	\$32.20	\$44.20		H H H H H H H N
Combo Unit driver & Jetter-Vac Operator	TM247-5 10/15/2012	\$32.20	\$44.20		H H H H H H H N
Pipe Bursting & Slip-lining Equipment Operator	TM247-6 10/15/2012	\$33.20	\$45.70		H H H H H H H N
Plasterer Plasterer	PL16-2 6/1/2010	\$36.92	\$49.39	\$61.86	H H H H H H H D N
Apprentice Rates:					
	1st year	\$28.19	\$36.30	\$44.40	
	2nd year	\$30.68	\$40.03	\$49.38	
	3rd year	\$33.18	\$43.78	\$54.38	
Plumber & Pipefitter Plumber & Pipefitter Four 10s allowed Monday thru Thursday. Friday not a makeup, considered OT, paid @ time & one-half.	PL-333-RI 12/29/2009	\$51.02	\$76.33	\$101.64	H H H H H H H D Y
Apprentice Rates:					
	1st 6 months	\$32.97	\$49.26	\$65.54	
	2nd 6 months	\$34.61	\$51.72	\$68.82	
	3rd 6 months	\$36.25	\$54.18	\$72.10	
	4th 6 months	\$37.89	\$56.64	\$75.38	
	5th 6 months	\$39.53	\$59.10	\$78.66	
	6th 6 months	\$41.17	\$61.56	\$81.94	
	7th 6 months	\$42.82	\$64.03	\$85.24	
	8th 6 months	\$44.46	\$66.49	\$88.52	
	9th 6 months	\$46.10	\$68.95	\$91.80	
	10th 6 months	\$47.74	\$71.41	\$95.08	

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Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2013

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Roofer					
Commercial Roofer	RO-70-Z2 3/28/2008	\$34.95	\$46.38	\$57.80	X X H H H H H D Y
Apprentice Rates:					
1st Class		\$20.63	\$25.35	\$30.07	
2nd Class		\$22.56	\$28.19	\$33.82	
3rd Class		\$24.53	\$31.12	\$37.70	
4th Class		\$26.36	\$33.83	\$41.31	
5th Class		\$28.21	\$36.56	\$44.90	
6th Class		\$30.03	\$39.23	\$48.43	
Sewer Relining					
Class I-Operator of audio visual CCTV system including remote in-ground cutter and other equipment used in conjunction with CCTV system.	SR-I 10/14/2011	\$41.07	\$55.60	\$70.12	H H H H H H H D N
Class II-Operator of hot water heaters and circulation system; water jetters; and vacuum and mechanical debris removal systems and those assisting.	SR-II 10/14/2011	\$39.54	\$53.30	\$67.06	H H H H H H H D N
Sheet Metal Worker					
Sheet Metal Worker 4 10s allowed as consecutive days, M-Th or T-F	SHM-7-1 10/22/2012	\$45.92	\$59.47	\$73.02	H H H H D D D D Y
Apprentice Rates:					
First Year		\$24.69	\$31.46	\$38.24	
Second Year		\$29.86	\$37.99	\$46.12	
Third Year		\$37.79	\$47.28	\$56.76	
Fourth Year		\$40.50	\$51.34	\$62.18	
Sprinkler Fitter					
Sprinkler Fitter	SP 669 9/17/2009	\$46.51	\$61.99	\$77.47	H H H H H H H D Y
Apprentice Rates:					
Class 1 & 2		\$23.44	\$31.31	\$39.17	
Class 3		\$29.35	\$37.75	\$46.15	
Class 4		\$30.93	\$40.12	\$49.31	
Class 5		\$35.50	\$45.47	\$55.45	
Class 6		\$37.07	\$47.83	\$58.59	
Class 7		\$38.65	\$50.20	\$61.75	
Class 8		\$40.22	\$52.55	\$64.89	
Class 9		\$41.79	\$54.91	\$68.03	
Class 10		\$43.36	\$57.27	\$71.17	

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<u>Classification</u>			Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description						
Tile, Terrazzo and Mosaic							
Finisher		BR9-31-TF	8/23/2010	\$29.32	\$38.41	\$47.50	H H H X H H H D Y
		Apprentice Rates:					
				0-749 hours	\$22.96	\$28.87	\$34.78
				750-1,499 hours	\$23.87	\$30.24	\$36.60
				1,500-2,249 hours	\$24.78	\$31.60	\$38.42
				2,250-2,999 hours	\$25.68	\$32.95	\$40.22
				3,000-3,749 hours	\$26.59	\$34.32	\$42.04
				3,750-4,499 hours	\$27.50	\$35.68	\$43.86
Setter		BR9-31-TS	8/23/2010	\$34.69	\$45.46	\$56.22	H H H X H H H D Y
		Apprentice Rates:					
				0-749 hours	\$27.15	\$34.14	\$41.14
				750-1499 hours	\$28.23	\$35.76	\$43.30
				1500-2249 hours	\$29.31	\$37.38	\$45.46
				2250-2999 hours	\$30.38	\$38.99	\$47.60
				3000-3749 hours	\$31.46	\$40.61	\$49.76
				3750-4499 hours	\$32.54	\$42.23	\$51.92
Truck Driver							
of all trucks of 8 cubic yd capacity or over		TM-RB2	10/9/2012	\$40.40	\$37.84		H H H H H H H H Y
of all trucks of 8 cubic yard capacity or less		TM-RB2A	10/9/2012	\$40.30	\$37.69		H H H H H H H H Y
on euclid type equipment		TM-RB2B	10/9/2012	\$40.55	\$38.06		H H H H H H H H Y
Underground Laborer Open Cut, Class I							
Construction Laborer		LAUC-Z3-1	1/16/2013	\$32.66	\$42.80	\$52.93	H H H H H H H D Y
		Apprentice Rates:					
				0-1,000 work hours	\$28.17	\$36.06	\$43.95
				1,001-2,000 work hours	\$29.07	\$37.41	\$45.75
				2,001-3,000 work hours	\$29.97	\$38.76	\$47.55
				3,001-4,000 work hours	\$31.76	\$41.45	\$51.13

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Classification Name Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Underground Laborer Open Cut, Class II

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.	LAUC-Z3-2	1/16/2013	\$32.80	\$43.01	\$53.21 H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$28.28	\$36.23	\$44.17
1,001-2,000 work hours	\$29.18	\$37.57	\$45.97
2,001-3,000 work hours	\$30.09	\$38.94	\$47.79
3,001-4,000 work hours	\$31.90	\$41.65	\$51.41

Underground Laborer Open Cut, Class III

Air, gasoline and electric tool operator, vibrato 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 drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger man, and directional boring man.	LAUC-Z3-3	1/16/2013	\$32.92	\$43.19	\$53.45 H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$28.37	\$36.36	\$44.35
1,001-2,000 work hours	\$29.28	\$37.73	\$46.17
2,001-3,000 work hours	\$30.19	\$39.09	\$47.99
3,001-4,000 work hours	\$32.01	\$41.82	\$51.63

Underground Laborer Open Cut, Class IV

Trench or excavating grade man.	LAUC-Z3-4	1/16/2013	\$32.97	\$43.26	\$53.55 H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$28.41	\$36.42	\$44.43
1,001-2,000 work hours	\$29.32	\$37.79	\$46.25
2,001-3,000 work hours	\$30.23	\$39.15	\$48.07
3,001-4,000 work hours	\$32.06	\$41.89	\$51.73

Underground Laborer Open Cut, Class V

Pipe Layer	LAUC-Z3-5	1/16/2013	\$33.11	\$43.47	\$53.83 H H H H H H D Y
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Apprentice Rates:

0-1,000 work hours	\$28.51	\$36.57	\$44.63
1,001-2,000 work hours	\$29.43	\$37.95	\$46.47
2,001-3,000 work hours	\$30.35	\$39.33	\$48.31
3,001-4,000 work hours	\$32.19	\$42.09	\$51.99

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<u>Classification</u>			Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description						
Underground Laborer Open Cut, Class VI							
	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	LAUC-Z3-6	1/16/2013	\$30.41	\$39.42	\$48.43	H H H H H H H D Y
Apprentice Rates:							
	0-1,000 work hours			\$26.49	\$33.54	\$40.59	
	1,001-2,000 work hours			\$27.27	\$34.71	\$42.15	
	2,001-3,000 work hours			\$28.05	\$35.88	\$43.71	
	3,001-4,000 work hours			\$29.63	\$38.25	\$46.87	
Underground Laborer Open Cut, 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, flagstones etc.	LAUC-Z3-7	1/16/2013	\$27.56	\$35.15	\$42.73	H H H H H H H D Y
Apprentice Rates:							
	0-1,000 work hours			\$24.35	\$30.33	\$36.31	
	1,001-2,000 work hours			\$24.99	\$31.29	\$37.59	
	2,001-3,000 work hours			\$25.63	\$32.25	\$38.87	
	3,001-4,000 work hours			\$26.92	\$34.19	\$41.45	

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General Decision Number: MI130084 02/08/2013 MI84

Superseded General Decision Number: MI20120084

State: Michigan

Construction Type: Building

County: Ingham County in Michigan.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	01/04/2013
1	02/08/2013

ASBE0047-002 07/02/2011

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 28.47	15.63

BOIL0169-001 01/01/2012

	Rates	Fringes
BOILERMAKER.....	\$ 31.88	25.89

BRMI0009-009 08/01/2011

	Rates	Fringes
BRICKLAYER		
Bricklayer.....	\$ 27.32	15.87
Terrazzo and Tile Finisher..	\$ 18.18	11.64
Terrazzo and Tile Setter....	\$ 21.53	13.66

FOOTNOTE:

Paid Holiday: Fourth of July, if the worker was employed by the contractor in any period of seven working days before said holiday within the current calendar year.

CARP1004-004 07/01/2012

	Rates	Fringes
CARPENTER (Soft Floor Layer, Including Carpet & Resilient Flooring).....	\$ 23.97	16.30

CARP1004-018 07/01/2012

	Rates	Fringes
CARPENTER, Includes Acoustical Ceiling		

Installation, Drywall
 Hanging, Form Work, and Metal
 Stud Installation.....\$ 23.97 16.30

 CARP1102-002 06/01/2012

	Rates	Fringes
MILLWRIGHT.....	\$ 31.07	27.64

 ELEC0252-001 06/04/2012

Townships of Bunker Hill, Leslie, Onodaga & Stockbridge

	Rates	Fringes
ELECTRICIAN		
Alarm Installation & Low Voltage Wiring.....	\$ 25.60	13.14
Excludes Alarm Installation and Low Voltage Wiring.....		
	\$ 38.98	20.18

 ELEC0665-004 06/01/2011

Townships of Alaiedon, Aurelius, Delhi, Ingham, Lansing, Leroy,
 Locke, Meridian, Vevay, Wheatfield, White Oak and Williamson

	Rates	Fringes
ELECTRICIAN		
Alarm Installation & Low Voltage Wiring.....	\$ 22.78	15.07
Excludes Alarm Installation & Low Voltage Wiring.....		
	\$ 30.48	18.65

 ENGI0324-012 07/01/2012

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 28.99	20.20
GROUP 2.....	\$ 28.74	20.20
GROUP 3.....	\$ 27.64	20.20
GROUP 4.....	\$ 22.84	20.20
GROUP 5.....	\$ 22.24	20.20
GROUP 6.....	\$ 19.79	20.20
GROUP 7.....	\$ 18.09	20.20

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: \$1.50 per hour above the group 1 rate. Crane operator with main boom and jib 400' or longer: \$3.00 per hour above the group 1 rate.

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

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

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

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

GROUP 3: Concrete Pump; Crane; Highlift; Hoist; Loader; Roller; Scraper; Stiff Leg Derrick; Trencher

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

GROUP 5: Boom Truck (non-swinging)

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

GROUP 7: Oiler

IRON0025-001 06/04/2012

	Rates	Fringes
IRONWORKER		
REINFORCING.....	\$ 28.74	23.35
STRUCTURAL (Excluding Metal Building Erection)....	\$ 33.29	25.34

LABO0499-012 08/01/2012

	Rates	Fringes
LABORER		
Common or General; Grade Checker; Mason Tender - Brick; Mason Tender - Cement/Concrete; Pipelayer; Sandblaster.....	\$ 21.38	12.17

PAIN0845-001 07/23/2012

	Rates	Fringes
PAINTER: Brush, Roller, Spray and Paperhanging.....	\$ 21.24	11.50
PAINTER: Drywall Finishing/Taping.....	\$ 24.00	12.09

PLAS0016-011 06/01/2012

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 24.64	12.88

PLUM0333-006 06/01/2012

	Rates	Fringes
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PIPEFITTER, Includes HVAC Pipe and Unit Installation.....	\$ 32.34	19.68
PLUMBER, Excludes HVAC Pipe and Unit Installation.....	\$ 32.34	19.68

FOOTNOTE:

Paid Holidays: Memorial Day, Independence Day and Labor Day, if the employee works the work day preceding and following the holiday unless proven illness or injury prevents the employee from working.

ROOF0070-003 06/01/2011

	Rates	Fringes
ROOFER.....	\$ 23.88	13.22

* SFMI0669-001 01/01/2013

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 30.64	17.12

SHEE0007-004 05/01/2012

	Rates	Fringes
SHEET METAL WORKER (Including HVAC Duct Installation; Excluding HVAC System Installation).....	\$ 27.10	18.79

SUMI2011-009 02/01/2011

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 18.48	7.93
LABORER: Landscape & Irrigation.....	\$ 8.00	0.00
METAL BUILDING ERECTOR.....	\$ 16.92	6.32
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 21.34	7.57
OPERATOR: Bulldozer.....	\$ 20.63	8.21
OPERATOR: Grader/Blade.....	\$ 22.00	6.29
OPERATOR: Tractor.....	\$ 19.10	8.48
TRUCK DRIVER: Dump Truck.....	\$ 16.00	7.26
TRUCK DRIVER: Lowboy Truck.....	\$ 14.50	0.44
TRUCK DRIVER: Tractor Haul Truck.....	\$ 13.57	1.18

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

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

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

Union Identifiers

An identifier enclosed in dotted lines beginning with
 characters other than "SU" denotes that the union
 classification and rate have found to be prevailing for that
 classification. Example: PLUM0198-005 07/01/2011. The first
 four letters , PLUM, indicate the international union and the
 four-digit number, 0198, that follows indicates the local union
 number or district council number where applicable , i.e.,
 Plumbers Local 0198. The next number, 005 in the example, is
 an internal number used in processing the wage determination.
 The date, 07/01/2011, following these characters is the
 effective date of the most current negotiated rate/collective
 bargaining agreement which would be July 1, 2011 in the above
 example.

Union prevailing wage rates will be updated to reflect any
 changes in the collective bargaining agreements governing the
 rates.

0000/9999: weighted union wage rates will be published annually
 each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived
 from survey data by computing average rates and are not union
 rates; however, the data used in computing these rates may
 include both union and non-union data. Example: SULA2004-007
 5/13/2010. SU indicates the rates are not union majority rates,
 LA indicates the State of Louisiana; 2004 is the year of the
 survey; and 007 is an internal number used in producing the
 wage determination. A 1993 or later date, 5/13/2010, indicates

the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

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

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

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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

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

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

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

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

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

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

Washington, DC 20210

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

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END OF GENERAL DECISION

The Work Category (W.C.) Description is included as a guide for Prospective Bidders to summarize the scope of work involved with the work category. The description included is **not** a final summary of the scope of work and should not be construed as such. **All** Contract Documents should be used, as a reference in preparing the Bid Proposal and any omissions in the proposal does not relieve the successful bidder of the responsibility to perform this work.

W.C. Category
No. Description

Specification
Reference

14	Roofing	Pre-Negotiated Work Category
18	Glass & Glazing	All Division 00 & 01 07 9200, 08 4113, 08 7100, 08 8000, 08 8300,
20	General Trades	All Division 00 & 01 02 4119, 03 3000, 04 4200, 05 1200, 05 5000, 06 1053, 06 4116, 07 9200, 08 1213, 08 1416, 08 7100, 10 1100, 10 1400, 10 1419, 10 2113, 10 2123, 10 2226, 10 2600, 10 2800, 10 4413, 10 5113, 11 6623, 12 2413, 12 3216, 12 3553.19, 12 3623.13
21	Drywall/Acoustical/Insulation	All Division 00 & 01 07 2100, 07 9200, 09 2216, 09 2900, 09 5113,
22	Flooring	All Division 00 & 01 07 9200, 09 0160.91, 09 3000, 09 6513, 09 6516, 09 6519, 09 6723, 09 6813,
24	Painting	All Division 00 & 01 07 9200, 09 9123, 09 9600,
27	Mechanical Systems	All Division 00 & 01 07 8413, 22 0500, 22 0517, 22 0518, 22 0519, 22 0523, 22 0529, 22 0553, 22 0719, 22 1116, 22 1119, 22 1123, 22 1316, 22 1319, 22 1413, 22 4123, 22 1513, 22 3400, 22 4213.13, 22 4216.13 22 4216.16, 22 4500, 22 6600, 23 0130.51, 23 0500, 23 0513, 23 0516, 23 0517, 23 0518, 23 0519, 23 0523, 23 0529, 23 0553, 23 0593, 23 0713, 23 0719, 23 0900, 23 0993, 23 1123, 23 2113,

27	Mechanical Systems Continued	23 2116, 23 2513, 23 3113, 23 3300, 23 3423, 23 3600, 23 3713, 23 5216, 23 7313, 23 7423.13, 23 8236, 23 8239.13, 23 8239.16
28	Electrical Systems	All Division 00 & 01 07 8413, 26 0000, 26 0500, 26 0519, 26 0523, 26 0526, 06 0529, 26 0533, 26 0544, 26 0553, 26 0900, 26 2200, 26 2416, 26 2726
29	Food Service Equipment	All Division 00 & 01 11 4000, 23 3813

END OF SECTION WC Cross Referenece

Work Category No. 00 – General Requirements for All Subcontractors**Work Included:**

1. All permits, fees, inspections and approvals required by governing jurisdictions are included within base bid. Coordinate well in advance (at least 24 hours), required inspections and testing with the Construction Manager. This will include liaison between state and local agencies to ensure code compliance and for securing approval for the facility.
2. Excessive noise and vibration creating equipment shall be prohibited within close proximity of existing Structures/Buildings or occupied spaces. All proposed equipment scheduled for project shall be reviewed with the Construction Manager prior to delivery onsite.
3. Cleanup is required on a daily basis, and/or as directed by the Construction Manager. Cleanup dunnage, shipping materials and associated materials/debris generated from installation and dispose of properly. At no time will shipping containers, crates, materials, piles of debris, tarps, boxes, etc. be left on site, unattended and unsecured, subject to unsafe conditions (i.e. access, fire and slip hazards and wind blown debris).
4. At least two (2) weeks prior to starting on-site, meet with the Construction Manager, Architect and Engineer to discuss and resolve any issues relating to status of material procurements, site conditions, access, staging/storage requirements, safety, testing, sequencing and scheduling of work.
5. Any work that could interfere with existing owners operation, i.e. use of certain roads, parking lots, access to buildings, shall require pre-task planning with the Construction Manager and shut-down notification requests shall be prepared (72) hrs in advance of any work being scheduled. Pre-task planning shall review and discuss scheduling, coordination with Owner operations, working durations, safe practices and procedures.
6. Protect existing structures, equipment, and finishes, including new work in place, from damage during the performance of this work category. Any protection removed to facilitate other work shall be reinstalled / replaced by the trade needing access.
7. Include all layout and engineering for each work category. Unless otherwise indicated in Section 00210, two control lines and one bench mark will be provided by the Construction Manager for Trade Contractor use.
8. Prior to commencing with installation, verify all field conditions and measurements and report any discrepancies to the Construction Manager.
9. Whenever possible all embeds to be furnished to other trades shall be fabricated / modified by the providing contractor with holes / tabs, etc to allow easy for installation by the installing contractor.
10. Provide full-time on-site supervision during the performance of your work. Supervision will be responsible for coordination, scheduling, safety, manpower, and other activities necessary to achieve safety, quality and scheduling requirements set forth under this work category. Supervision shall not be removed from this project without prior written consent and approval of the Construction Manager.
11. Full compliance with all site specific rules and regulations, including (but not limited to) OSHA, State Authorities, Local Authorities, and the Construction Manager. This subcontractor shall submit, prior to performing any work on-site, a copy of their site specific safety program/manual.

12. Should Subcontractor require on-site trailer or storage units, Subcontractor shall obtain approval from the Construction Manager on size, count and where to locate, prior to delivery on-site. Subcontractor to arrange and pay for service to trailers, including (but not limited to) electrical, phone, etc.
13. For material deliveries, if traffic control is required, Subcontractor to arrange manpower accordingly and provide signage, barricading, flagman etc., necessary for the safe performance of own work and protection of the public. Staging, storage on-site, and all deliveries required to support this installation must be reviewed and approved in advance by the Construction Manager.
14. Furnish and receive all required materials and deliver FOB jobsite. All deliveries shall be closely coordinated with the Construction Manager and 72 hour advance notice shall be given prior to delivery. Unless noted otherwise, deliveries must be coordinated to be complete with unloading during normal working hours.
15. This subcontractor will receive and handle all respective material and properly store/protect before, during and after installations. Excessive and out-of-sequence deliveries will be prohibited and subject to re-handling and removal offsite as directed by the Construction Manager.
16. Unless noted otherwise in Section 00210, furnish all hoisting, lifting, scaffolding, and handling to complete your own work.
17. Hoisting of materials and equipment over occupied areas will not be permitted, unless areas below are vacated or occupancy access is controlled during lifting. Each subcontractor will be required to notify Construction Manager seven (7) days in advance of required hoisting over occupied areas. Pre-Task planning and shut-down notifications will be required to assure minimum interruptions to Owner operations. In general, any hoisting equipment required to be used on-site must be reviewed in advance with Construction Manager for coordination of site logistics, safety procedures (including FAA approvals if required), access, lift swing areas, duration and overall activities relating to this hoisting equipment.
18. Approved O&M manuals are required at least 2 weeks prior to equipment start-up, start of warranty, and Owner training, but no later than thirty (30) days prior to substantial completion.
19. In the event of any jurisdictional or labor issues, the subcontractor assigned the work shall arrange to complete all work as required to avoid any interruptions/continuity of work on this project at no additional cost. All labor requirements pertaining to the project will be met.
20. Cooperate fully with representatives from Architect, Engineer, Owner, Construction Manager and independent testing agency, and allow for in progress inspections, including providing access to areas of work, when required.
21. This project may require multiple phases, which will require re-mobilization. All costs for multiple phasing shall be included.
22. Each Trade Contractor shall assume full responsibility for all pre-ordered products after their arrival at this designated location. This includes transportation, storage, start-up, warranty services, and installation in accordance with the General Conditions unless otherwise specified.

23. Critical Scheduling and Sequencing of Work:

The Construction Manager shall provide overall scheduling and coordination for the entire project. All Trade Contractors shall acknowledge the Construction Manager's right to establish and set up, or subsequently modify the sequencing and scheduling of all work on this project for the earliest completion and/or benefit to the Owner. More restrictive sequencing to coordinate the Owner's on-going operations and/or for the coordination of the various trades shall be spelled out by the Work Category descriptions or as otherwise directed by the Construction Manager. All Trade Contractors agree to cooperate and alter their operations to maintain these more specified restrictions and sequences of the work.

- A. Subcontractor agrees to work concurrently with other subcontractors and the Construction Manager, according to the Master Project Schedule.
- B. Subcontractor shall confirm fabrication lead times, installation durations and sequencing for their Work in writing within two weeks of award, and report any discrepancies to Construction Manager.
- C. Scheduling updates and proper coordination and communication with other trades shall be accomplished as follows:
 - Weekly sub-progress meetings
 - Safety meetings, BIM meetings, scheduling meetings, pre-installation meetings, etc.

24. Construction Waste Management And Disposal – Review Spec Section 017419 Construction Waste Management And Disposal

25. General Commissioning Requirements – Review Spec Section 019113 General Commissioning Requirements.

26. Indoor Air Quality Management Plan – During Construction. Comply with site specific IAQ Management Plan for this project.

End of Work Category No. 00

Work Category No. 14 - Roofing & Sheet Metal (Pre-Negotiated)**Work Included:**

The subcontractor shall timely perform all Roofing & Sheet Metal work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

Work Category Notes:

1. Furnish and install all roof shingles, membrane roofing, metal roofing, built-up roofing, roof insulation, roof expansion joints, roof hatches and accessories, gutters and downspouts, overflow scuppers, walkway protection, ballast, flashings, copings, gravel stops, reglets, termination bars, trim, sealants, ice and water shield, etc., indicated by the contract documents (not just limited to the roof plan) or as required for a complete installation, including labor, materials, equipment, adhesives, fasteners and accessories.
2. Include removal of perimeter fall protection system in conjunction with roofing installation.
3. Where perimeter details cannot be completed until the building skin is complete, provide preliminary weather protection (i.e. extend and secure membrane over parapet walls, if required).
4. Coordinate with mechanical contractor and steel contractor for installation of roof curbs for mechanical equipment and roof hatches.
5. Furnish all hoisting, lifting, and handling, etc. of materials as required for this W.C.
6. Provide broom cleaning of concrete and metal deck roof areas, just prior to installation of roofing systems, i.e. tracked dirt, unidentifiable debris.
7. All fire stopping, flashings, roof termination details shall be inspected and documented by Construction Manager prior to being covered up and concealed.
8. All specified warranty requirements shall be met by this W.C., including all costs of inspection and observation by manufacturer's representatives as required.
9. Subcontractor and manufacturer's representatives shall attend a Pre-Roofing Conference at the project site at a time determined by Owner, Architect, and the Construction Manager.
10. All materials and equipment shall be secured at all times for wind loads.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. The intent of this contract is to provide the labor and materials necessary to properly seal the roofing penetrations shown on the contract documents.
2. An evaluation criteria for award will be the Tradecontractors ability to maintain the roofing warranty at The Capital Area Career Center after work associated with the contract is complete.
3. Roofing plans are not included, reference demolition, structural and MEP drawings for required work.

Related Work by Others:

1. Prefabricated roof curbs for mechanical equipment to be furnished and installed by W.C. 27.
2. Wood blocking and wood nailers by others.
3. Roof sump pans, roof drains, overflow roof drains, roof stairs and ladders – furnished and installed by others

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 14

Work Category No. 18 – Glass, Glazing, and Aluminum Entrances**Work Included:**

Complete all Glass, Glazing, and Aluminum Entrances work in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, etc.), Addenda, Specification Sections:

07 9200	Joint Sealants (related to work activities)
08 4113	Aluminum-Framed Entrances and Storefronts
08 7100	Door Hardware (related to work activities)
08 8000	Gazing
08 8300	Mirrors

Work Category Notes:

1. Furnish and install all aluminum entrance, storefront, curtain wall system, windows, interior and exterior glass/glazing, and window systems complete as shown and/or specified. Includes all labor, material, accessories, and equipment for a complete installation.
2. Furnish and install all required fasteners, angles and supports required for complete installation of these systems.
3. Include all sealants related to this work required for a complete installation, including glass to aluminum, aluminum to aluminum, aluminum to adjacent surfaces. Verify compatibility of sealants to surfaces.
4. Furnish and install aluminum covers, sills, mullions, trim, sill extensions, flashing and counter flashing etc. where aluminum systems abut other finishes and/or are shown to incorporate structural members or adjacent to the window/glazing systems
5. Furnish and install all glazing at doors and lite frames provided by others. Includes removal, reinstallation, filler-putty and finish touch-up of glazing stops
6. Furnish and install fire stop assembly where floors adjoin the curtain wall system and insulation incorporated into the curtain wall system.
7. Coordinate rigid insulation installation with roofing, floor firestopping, and floor anchors systems.
8. Coordinate flashing details with roofing subcontractor for water tight installation. All counter flashing details to be inspected and documented by Construction Manager, prior to being concealed.
9. Expansion joints integral with curtain wall systems are by Subcontractor.
10. Furnish and install metal panel in fills, integral with curtain wall & storefront systems.
11. Coordinate this work with structural, architectural and other related trades for thru-wall flashings, trim, closures, joint sealant work, and architectural finishes for a complete water tight assembly.
12. Complete shop drawings and sealed engineering calculations by licensed engineer showing compliance with specified design criteria.
13. Removal of all labels, stickers, markup, etc. from glass and final washing and cleaning of glass at or just prior to substantial completion. Replace glass damaged from heat absorption into glass from stickers not removed.

14. Construct field mock-up wall requirements. Expedite mock-up shop drawings and submittals for prompt review and installation, well in advance of installation. Field mock-up will be subject to independent air & water infiltration testing, performed by an Independent Testing Agency.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. Furnish and install hardware for all doors under this contract. Coordinate keying requirements with Ingham ISD and The Christman Company.
2. Furnish and install all interior glazing for the project. This includes but is not limited to systems such as wood doors, hollow metal doors, hollow metal windows, etc.
3. Furnish and install all mirrors.
4. Coordinate wood blocking requirements.
5. Coordinate with other trades and The Christman Company for electric strike power requirements,

Related Work by Others:

Blocking in wall openings WC 20

Electric wiring for electric strikes WC 28

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 18

Work Category No. 20 – General Trades**Work Included:**

The subcontractor shall timely perform all work as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

02 4119	Selective Demolition
03 3000	Cast-in-Place Concrete
04 4200	Unit Masonry
05 1200	Structural Steel Framing
05 5000	Metal Fabrications
06 1053	Miscellaneous Rough Carpentry
06 4116	Plastic-Laminate-Faced Architectural Cabinets (Alternate)
07 9200	Joint Sealants
08 1213	Hollow Metal Frames
08 1416	Flush Wood Doors
08 7100	Door Hardware (related to work activities)
10 1100	Visual Display Surfaces
10 1400	Signage
10 1419	Dimensional Letter Signage
10 2113	Toilet Compartments
10 2123	Cubicle Curtains and Track
10 2226	Operable Partitions
10 2600	Wall and Door Protection
10 2800	Toilet, Bath and Laundry Accessories
10 4413	Fire Protection Cabinets
10 5113	Metal Lockers
11 6623	Gymnasium Equipment
12 2413	Roller Window Shades
12 3216	Manufactured Plastic-Laminate-Faced Casework
12 3553.19	Wood Laboratory Casework
12 3623.13	Plastic-Laminate-Clad Countertops

1. Complete all exterior and interior Carpentry/Millwork (rough and finish) and various General Trades Work as noted within this Work Category, including all labor, materials and equipment required for a complete installation.
2. All exterior and interior rough and finish carpentry including counters, cabinets, trim, nailers, blocking and plywood sheathing.
3. Furnish and install all roof nailers, plywood sheathing and blocking. Remove perimeter fall protection which consists of misc. iron uprights and perimeter cable (top and mid-rail) just prior to the installation of roof nailers and sheathing. Discard perimeter protection materials into dumpster. Furnish and install roof curb wood nailers and blocking. Furnish and install rigid insulation in concealed locations created by Subcontractor.
4. Furnish all embedded anchors and bolts for rough carpentry to masonry and concrete to be installed by

others.

5. Furnish and install wood blocking, FRT, sheets, boards, plywood, etc. for required materials that are to be installed by this work category.
6. If in-wall backing/blocking is required by a specific manufacturer for products included as part of this Work, though not specifically shown within the documents, i.e. architectural millwork, handrails, wall trim, wall mounted toilet partitions, visual display surfaces, metal lockers, fire extinguisher cabinets, misc. accessories, etc., Subcontractor to furnish and install blocking for a complete installation. Also, Subcontractor to furnish and install required sheet metal strip backing for materials provided as part of this Work, as well as materials furnished by the Owner and specifically assigned to Subcontractor for installation of sharps containers, coat hooks, and other items listed.
7. Furnish and install all wood blocking in gypsum walls as required for cabinets, toilet partitions, metal and wood lockers, hangers, racks, brackets, handrail, owner furnished items, etc. Also furnish and install all roof required nailers/blocking.
8. Furnish and Install exterior and floor expansion joints (including any grouting requirement to anchor, level and properly set), including fire barrier(s) under and beyond expansion joint areas. Installation of floor expansion joints shall occur just prior to finish flooring installation. Fire barrier(s) within concealed locations to be installed and inspected prior to being covered by architectural walls and ceilings.
9. Furnish and install concrete expansion joints and associated fire stop as specified. Shop drawings required immediately for this work.
10. Provide non-combustible wood blocking in walls for wall mounted accessories and equipment installed by Owner/others shown or specified.
11. Furnish and install folding doors, including above ceiling misc. iron support to receive folding doors.
12. Furnish and install doors, frames, and hardware. Furnish only and coordinate delivery of frames to be received and installed by others. Electric strikes, magnetic hold-opens, power transfer units will be installed by others – WC-28. Coordinate deliveries, installation instructions & wiring diagrams directly with WC-28. Card readers and power supply, shall be furnished and installed by Owner.
13. Include grouting of hollow metal door frames in drywall partitions.
14. Manufacturer's rep is to review, approve and sign off on the installation of all door hardware before acceptance by The Christman Company and the Owner.
15. All interior finish carpentry, architectural woodwork, shelving and millwork. Provide all sealants to adjacent surfaces, including dissimilar materials. Coordinate counter top support spacing with WC 27 under lavatory guards and lavatory installation.
16. Furnish and install wall protection systems, including fiberglass reinforced wall panels and associated trim/accessories for a complete installation, delivered per floor.
17. Furnished and installed all window sills.
18. Furnish and install all solid-surface materials and grommets as indicated.
19. Furnish and install all wall protection, handrail, corner guards, and crash rail.
20. All architectural hardware for cabinets supplied by this Work Category.
21. Include all stainless steel required and associated with millwork.

22. Install all custom casework fabricated and furnished by others including cabinets, p-lam coat shelves, p-lam and solid surface vanity tops, and solid surface windowsills.
23. All fabricated materials are to be shop assembled to the greatest extent possible before shipping to the job site.
24. Furnish and install handrails, brochure display case, wood counter top, transaction counters, crash rails, corner guards, wall hooks, adjustable shelves, wall protection, stainless steel shelves and projection screens.
25. Furnish and installation of specialties including but not limited to: lockers, benches, toilet accessories, curtain tracks, coat racks, mop / broom holders, robe hooks, wall and corner guards, fire extinguishers, fire extinguisher cabinets, brackets, associated signage, coat/clothes hooks, visual display boards, tack strips, tack boards, operable partitions, signage, etc., as well as all items mentioned in the above referenced spec sections.
26. Equipment items designated as Owner-Furnished/Contractor-Installed are a part of this scope of work. Owner furnished equipment isolated to an electrical connection "only" will be handled by the electrical subcontractor. Equipment requiring water and ducting, etc. will be handled by the mechanical subcontractor. All equipment that does not have any mechanical and/or electrical connection is the responsibility of this work category to receive, unload, distribute, and install.
27. All required temporary enclosures, materials, shoring, etc., to perform the demolition of the existing wall systems. Temporary enclosures must be weather tight.
28. Protect from damage existing finish work that is to remain.
29. Furnish and install sealants for all materials installed by this contractor such as cabinets, counters, sills, etc.
30. Furnish shop drawings, samples, product data, test reports, coordination drawings and other submittals as specified. Coordinate submittal schedule with the Construction Manager.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. Provide all dumpsters and legal disposal of materials related to demolition. Coordinate dumpster placement with The Christman Company prior to delivery of units.
2. Include saw cutting and/or tooting of masonry for new openings.
3. Include removal, storage and re-installation of existing louver at boiler room to facilitate removal of existing boilers and installation of new boiler units. See sheet A-200.
4. Removal of existing overhead door opening complete and installation of new materials. See sheet A-200.
5. Remove all housekeeping pads in boiler room that are no longer needed with the new boiler layout. Patch and repair existing floor to remain in these areas.
6. Furnish and install all masonry and related accessories for a complete system.
7. All structural and miscellaneous steel is part of this work whether it is shown on the construction or not. This includes supporting of roof penetrations larger than 12"x12". Review mechanical, electrical and food service drawings in addition to the architectural and include these openings.
8. Include all site restoration including fine grading and seeding related to this work categories activities.

9. Provide temporary fire extinguishers (during construction) within a freestanding wood cabinet painted in red, labeled "fire extinguisher" as located by the Construction Manager. Removal following use included. Quantity for each area to match minimum required by MIOSHA.
10. Keying of all cylinders including master keying, etc. in accordance with the specifications for all doors except aluminum openings. Coordinate keying requirements with The Chrisman Company and Ingham ISD.
11. Furnish, install, maintain and remove all temporary protection/barricades in Corridors A & D. All temporary protection shall be friction fit. Do not damage or penetrate existing walls and floors. Height of temporary walls 6'-0".
12. Include saw cutting of floors for underground MEP services as well as placement of new concrete after work is completed by others. Coordinate routing with WC 27 & WC 28.
13. Relocation of Owner equipment in is the responsibility of this contract. Correction for sheet A-013 is as follows:
 - a. Relocated items from Welding Technology 500W will move to Storage 501
 - b. One pedestal grinder from Precision Machining Technology 500M will move to Storage 501.
 - c. Equipment in Auto Technology 500A will move to Technology Lab 500B
 - d. Equipment in Precision Machining 500M (other than equipment outlined in note b above) will be the responsibility of Ingham Intermediate School District.
 - e. For all equipment, final electrical and mechanical connections by WC 27 & WC 28.
14. Vacuum & Air compressor associated with the down draft paint booth in Technology Lab 500B shall be turned over to Ingham Intermediate School District.
15. This Tradecontractor is responsible to remove and legally dispose of the existing down draft paint booth in Technology Lab 500B. At the time of post bid interview, identify amount included for this work.
16. Included infill of floor at downdraft point booth after removal in Technology Lab 50B.
17. At the time of post bid interview, identify casework contractor that this Tradecontractor is using including lead-times for cabinets and epoxy countertops.
18. Solid surface counter at Instruction Kitchen 702 Island is by this Tradecontractor.
19. Furnish and install concrete pad and foundations for exterior walking freezer and refrigerator including site prep and restoration. Coordinate through slab services with WC 27, WC 28, & WC29. See sheet A-102 and S-300.
20. Include relocation and reinstallation of existing lockers including removal of old locker bases to finish floor height as indicated on the drawings. Reference A-100 series sheets.
21. Include relocation of existing millwork as shown.
22. All floor patching to subflooring where existing walls are removed is the responsibility of this work category.
23. Furnish and install insulation for masonry and concrete work.
24. Include student tables in Cosmetology Classroom 202A.
25. Remove store and reinstall existing roller shades in Café 620. See note on sheet A-012.
26. Include relocation of refrigerator indicated on keynote 25 on demolition sheets.
27. Include Relocation of cosmetology stations per keynote 30 on demolition sheets.
28. Demolition Keynote 52 pertains to storage room in Area D. The intent is for surface removal; not complete removal.
29. Additional demolition shown on MEP sheets. Reference and include as appropriate after WC 27 & WC 28 cut, caps and makes safe.

Related Work by Others:

1. Cut, cap and make safe for mechanical & electrical scheduled for demolition by WC 27 & WC 28
2. Aluminum entrance door hardware furnished and installed by WC 18.
3. Roof accessories furnished and installed by WC 14.
4. All aluminum door hardware provided by WC 18.
5. Removal of existing flooring and sub flooring in rooms that will receive resinous flooring by WC 22.
6. Shelving in in Health Occupations Storage 205 B by Owner.
7. Removal of keynote items 44 & 45 by WC 29.

Allowances:

This Contractor shall include in their Base Bid a Construction Manager's allowance of \$15,000. Reference Section 01020 for specific instructions on allowances.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 20

Work Category No. 21 – Drywall/Acoustical/Insulation**Work Included:**

The subcontractor shall timely perform all Walls & Ceilings work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

07 2100	Thermal Insulation
07 9200	Joint Sealants (related to work activities)
09 2216	Non-Structural Metal Framing
09 2900	Gypsum Board
09 5113	Acoustical Panel Ceilings

Work Category Notes:

1. Furnish and install all interior and exterior gypsum board, metal stud framing, cold-formed framing, insulation, ceiling grid, ceiling tile, as shown and/or specified. Includes all labor, material, accessories, and equipment for a complete installation.
2. Above ceiling support wires for ceiling grid, soffits and hard ceilings will be installed after MEP-above ceiling rough-ins. Hanger wires where required to support light fixtures, grilles, and registers, etc.
3. Furnish and install all expansion joints and covers in drywall, soffit assemblies and/or ceiling grid assemblies. Properly anchor, level and set, including fire barrier(s) under and beyond expansion joint areas. Installation of wall and ceiling expansion joints shall occur just prior to finish painting per floor. Fire barrier(s) within concealed locations shall be installed and inspected prior to being covered by architectural walls and ceilings.
4. All interior and exterior wall and ceiling fire stopping, thermal and acoustical insulation as it relates to this contractors work.
5. Furnish and install all fireproofing and per the drawings and specifications.
6. Acoustic sealants and caulking of work within this work category including bottom, sides and top of rated walls. Furnish and install all necessary fire caulking related to this W.C including all required fire taping of walls and ceilings. Subcontractor shall be required to fire-stop, smoke seal and sound seal, all other remaining penetrations, and schedule all Work of this type to completed and inspected just prior to ceiling grid installation.
7. Properly fire stop and seal all fire wall penetrations created by this work. Fire stop to mechanical, electrical, and plumbing sleeves furnished and installed by others.
8. Furnish and install all access panels shown on the drawings in stud partitions or ceilings including mechanical and electrical panels. It is your responsibility to review all drawings complete including the mechanical and electrical drawings. Install all access panels in metal stud walls and ceilings furnished by mechanical, fire protection, and electrical contractors (not shown on drawings).
9. All layout and control lines for wall, partitions, and ceilings related to this W.C.
10. Install shimming necessary to maintain true lines.
11. Furnish and install all ceiling surfaces per the drawings and specifications. Include cutting sprinkler heads.

A nominal quantity of additional heads required by inspectors to be expected in addition to those shown on the fire protection drawings.

12. Wall and soffit top track will be installed prior to spray-on fireproofing at all floor areas. Protect top track and clean-off overspray fireproofing and promptly clean up debris and discard into dumpsters.
13. Extreme care is to be taken when installing hangers and equipment in the area that has "spray on fireproofing", so as not to damage it. This contractor will be responsible for patching fireproofing in case of damage by this trade.
14. Clips, supports and other misc. framing details to support and construct walls and soffits, shall require Subcontractor to remove spray-on fireproofing to complete anchoring. Subcontractor to promptly cleanup and dispose of debris generated by this Work, into dumpsters. Patching of spray-on fireproofing will be by others, except for excessive patching required due to lack of care by Subcontractor, which will be back charged to Subcontractor.
15. Install all light gauge metal framing including truss system & stiff clips.
16. Tape and sand joints to bottom of gypsum board to provide even, clean joints to receive vinyl base.
17. All cold-formed framing, fire-stopping, vapor barriers, non-load bearing steel framing, gypsum board, glass-reinforced gypsum fabrications, acoustical ceilings, acoustical wall panels Work, including all labor, materials and equipment required for a complete installation.
18. All interior joint sealants at the following conditions:
 - a. Hollow metal door & window frame-to-gypsum board
 - b. Gyp. Board-to-curtain wall aluminum framing

Note: Joint sealants at millwork and solid surface window sills, by others WC20. Joint sealants at ceramic tile, by others WC 22.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. Furnish and install all sound attenuation insulation. Reference reflected ceiling plans.

Related Work by Others:

1. Dumpsters by Construction Manager.
2. Temporary Water and electrical by Owner.
3. Roof insulation by WC 14.
4. Exclude foundation and masonry insulation by WC 20

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 21

Work Category No. 22 – Flooring**Work Included:**

The subcontractor shall timely perform all Hard Tile and Terrazzo work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

07 9200	Joint Sealants (related to work activities)
09 0160.91	Restoration of Terrazzo Flooring (alternate)
09 3000	Tiling
09 6513	Resilient Base and Accessories
09 6516	Resilient Sheet Flooring
096519	Resilient Tile Flooring
09 6723	Resinous Flooring
09 6813	Tile Carpeting

Work Category Notes:

1. Furnish and install all hard tile, resilient base & accessories, resilient sheet flooring, resinous flooring, tile carpeting and restoration of terrazzo flooring (alternate) as required (at floors, walls, sills, base, etc) including floor patching, preparation, joints, and sealing as shown and/or specified. Includes all labor, material, accessories, and equipment for a complete installation.
2. Furnish and install all transition strips between different floor types.
3. Provide additional temporary lighting as required for proper installation.
4. Furnish and install materials necessary to match finishes in existing tie-in areas and at different floor types.
5. Protection of flooring shall be provided by this contractor until substantial completion. Provide final cleaning after floor protection is removed.
6. Coordinate elevations of floor sinks and drains with WC 27 for proper adjustment prior to installation of flooring, providing acceptable slope, patterns, and transitions.
7. Concrete floors have been placed to meet the flatness tolerances listed in 03 3000 specifications. This Tradecontractor shall provide all surface prep, including scraping, sanding, filling, feathering, etc. for a complete installation.
8. Broom sweep and prep floor as required for this work.
9. Verify curing compounds & sealers used on new and existing surfaces are compatible for flooring adhesives and materials.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. Include all demolition of existing flooring in all areas that receive a resinous flooring finish. Demolition to include completely grinding existing setting materials under flooring system to concrete subflooring.

Just prior to installation of specified resinous flooring system, include shot blasting of area to ensure bonding.

2. At the time of post bid interview, identify manufacturer of resinous flooring system and moisture content for sub base.
3. Furnish and install crack isolation membrane and waterproofing as indicated on the construction documents.
4. Include necessary restoration of flooring at relocated locker areas. See A-100 series drawings.
5. Furnish and install walk off carpeting in Vestibule 099.
6. Include relocation of fixtures in Cosmetology 202 for flooring installation.
7. Include removal and replacement of carpeting in Entry 518 & 519. See Sheet A-902.
8. Include necessary labor and materials for construction keynote 10 on sheet A-101.

Related Work by Others:

1. Demolition of flooring in areas that receive all other flooring except for resinous flooring system by WC 20.

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 22

Work Category No. 24 – Painting**Work Included:**

The subcontractor shall timely perform all Painting and Wallcovering work as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

07 9200	Joint Sealants (related to work activities)
09 9123	Interior Painting
09 9600	High-Performance Coatings

1. Furnish all labor and material to complete all interior and exterior painting as shown and/or specified, including but not limited to; exposed masonry, exposed steel, exposed unfinished wood materials, field painting of equipment, bollards, stairs, handrails, ladders, decorative columns, concrete walls, lintels, door frames, louvers, canopies, handrails, bollards, trellis, mechanical, electrical and fire protection piping (including protection of sprinkler heads) etc. including all labor, materials and equipment required for a complete installation.
2. All required surface prep for this work including touch up of steel primer as required.
3. Final wall preparation to include minor patching (scratches and small dents) and minor caulking in all areas which call out for paint. All areas should be reviewed by the painter prior to new finishes being applied.
4. Finishing of millwork/casework and trim items not furnished pre-finished, including wood filler, and putty if required. Light sanding may be necessary prior to applying finishes.
5. Temporary protection of all areas and clean up of paint overspray (if materials are outside of interior renovations) and drippings. Protect all new and existing finishes adjacent to painted areas prior to painting.
6. Protect fire suppression heads; promptly remove protection.
7. Sequence the work as follows: patching and priming, first finish coat, installation of cabinets, tops, etc, and then final coat. Multiple mobilizations will be required by this work category due to phasing of construction.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. *Add project specific details, using terminology like “similar to” and “an example of which is shown in detail...” so as not to limit the intended assignment of scope to just that detail.*
2. *Add project specific scheduling / phasing / sequencing issues that may impact this contractor’s work. Include any phasing of shop drawings that may support this sequencing.*

Related Work by Others:

1. Caulking of plumbing fixtures by WC 27, millwork and cabinets by WC 20, floor base by WC 22, exterior aluminum glazing by WC 18 and interior aluminum glazing by WC 18

2. Labeling of piping system and fire rated partitions by others.
3. Caulking of masonry joints by WC 20.
4. Caulking of hollow metal doors-to-drywall and window aluminum framing-to-drywall, by WC 21.

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 24

Work Category No. 27 – HVAC Systems**Work Included:**

The subcontractor shall timely perform all HVAC work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Contract Forms and General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

220000 General Plumbing Provisions

Work Category Notes:

1. Furnish all labor, materials, tools and equipment associated with HVAC/sheet metal, and air distribution equipment Work, including associated insulation, formal MEP space coordination process, commissioning and start-up/testing, for a complete installation, indicated by the contract documents (not just limited to the HVAC drawings) or as required for a complete installation, including labor, materials, dampers, duct detectors, louvers, accessories, and equipment for a complete installation.
2. Include all required air plenums, including insulated panels, sheet metal closures, misc. iron galvanized support angles, stud framing system supporting wall and ceiling panels, joint sealants, access doors (including frames if required and hardware), fiberglass insulation, etc. for a complete installation.
3. Investigate areas prior to demolition activities, reroute and relocate existing services required for occupied operation. Cut, cap, and make safe, all existing ductwork and HVAC systems in renovated areas prior to demolition. Properly identify and mark system and components to be removed.
4. All cutting, capping, coring, patching and firesafing of walls, floors, ceilings, etc., required for the installation of this work. Patch and repair work is to be done professionally by skilled craftsmen. All such openings require prior written approval from the Construction Manager, before work begins. Furnish and install all sleeves and or misc. steel in walls, floors, roofs and ceilings that may be required by this W.C.
5. Furnish drawings showing size and location of concrete pads required for mechanical equipment to Construction Manager. Installation of these pads is by W.C. 10.
6. All utility connection, disconnections, tie-ins, crossovers, shut downs and similar work must be performed and scheduled so they will not interfere with other work. It may be necessary to make these changes during "off" hours, or it may be necessary to make "hot tap" connections. The contractor should plan on premium time for this work. Coordinate with the Construction Manager prior to performing this work.
7. Furnish access panels where required for the wall and ceiling valves, dampers and controls that are not shown on the Architectural/Mechanical plans but are necessary for the Mechanical Systems.
8. Extreme care is to be taken when installing hangers and equipment in the area that has "spray on fireproofing", so as not to damage it. This contractor will be responsible for patching fireproofing in case of damage by this trade. This work is to be performed by a qualified contractor so that the warranty will not be affected.
9. Furnish all hoisting, lifting, scaffolding and handling of all materials required to complete this work category.
10. The Electrical, Fire Protection, and Mechanical Contractors will be required to coordinate in a formal

coordination process to accomplish the rough-in and final layout as required and specified in Section 1049. Any relocation required to coordinate work will be done at no additional cost to the Owner. All contractors are required to furnish layout and coordination prints for their work prior to these meetings allowing the team to be better prepared at each coordination meeting. Detailers will be provided by this contractor to accomplish this coordination. These meetings shall be coordinated with the construction manager and shall be held on-site.

11. Provide and install mechanical equipment tags, pipe identification and other required identification of signage related to his work.
12. Run the various building piping systems out five (5) feet from the building walls and make the final connections to underground systems.
13. The mechanical contractor will provide assistance during concrete pours to guarantee the proper elevation of drains is maintained during the concrete pour. Accommodate floor finishes when calculating elevations.
14. Furnish and install all roof curbs and necessary or required auxiliary steel framing for equipment supplied under this W.C. This includes any auxiliary steel required at roof openings not shown on the structural drawings, or for pipe hangers and plenum stiffeners.
15. A coordination meeting will be set up between the controls contractor, mechanical contractor, electrician, and construction manager prior to control work. This will include all required work for a complete system as indicated in the construction documents.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this work category:

1. *Add project specific details, using terminology like “similar to” and “an example of which is shown in detail...” so as not to limit the intended assignment of scope to just that detail.*
2. *Add project specific scheduling / phasing / sequencing issues that may impact this contractor’s work. Include any phasing of shop drawings that may support this sequencing.*

Related Work by Others:

1. Concrete equipment pads and demoed areas by W.C. 10.
2. Roof vents flashing and counter flashing by W.C. 14.
3. Fire protection system and risers by W.C. 26.
4. Site and footing drainage systems by W.C. 02B.
5. Power supply to mechanical equipment by W.C. 28.
6. Installation of access panels/doors by W.C. 21.
7. Site utilities beyond 5’ from building perimeter by WC 02A or Utility Company.
8. Counter tops to be cut by WC 20.

Allowances:

This Contractor shall include in their Base Bid a Construction Manager’s allowance of \$. Reference Section 01020 for specific instructions on allowances.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 27**Other Items to Review – TCC ONLY**

1. Who is providing hoisting equipment (is there a project tower crane or material hoist?)
2. Any Owner Furnished, Contractor installed items (or relocated equipment)?
3. Any pre-purchased equipment that needs to be assigned?
4. Is demolition of existing systems being done by demo contractor or ME&P trades?
5. Who does concrete removal in existing spaces for underground? Can it be quantified on documents?
6. Is there kitchen equipment? If so, and it's provided by a food service contractor, who unloads, hoists, installs (equipment and curbs), etc?
7. Are there fume hoods, paint spray booths, or similar? If so, identify point of termination provided by supplier/installer of equipment and starting point for mechanical / fire protection.
8. Verify jurisdictional claims on underground work termination points (for fire protection/gas/water/sanitary). Some trades have issue with our 5' outside building practice (prefer taking into building, up through floor and terminating).
9. Any confined spaces? Include labor and equipment as required for all confined space entry monitoring and rescue, for work performed within this work category.
10. Verify where louvers are specified (occasionally specified in the former Division 10).
11. Is excavation & backfill required for this work (especially for renovation work & tie-in to existing buildings)? All excavation and backfill related to Work including suitable backfill, compaction, & restoration and removal (from site) of all unsatisfactory fill in accordance with the documents.
12. Temporary heat, conditioning...who?
13. **IF 27A HVAC is used, WC 27 should be significantly overhauled to identify separation of work responsibility.**

Work Category No. 27 – Mechanical and Plumbing Systems**Work Included:**

The subcontractor shall timely perform all Mechanical and Plumbing work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Contract Forms and General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

22 0500	Common Work Results for Plumbing
22 0517	Sleeves and Sleeve Seals for Plumbing Piping
22 0518	Escutcheons for Plumbing Piping
22 0519	Meters and Gages for Plumbing Piping
22 0523	General-Duty Valves for Plumbing Piping
22 0529	Hangers and Supports for Plumbing Piping and Equipment
22 0553	Identification for Plumbing Piping and Equipment
22 0719	Plumbing Piping Insulation
22 1116	Domestic Water Piping
22 1119	Domestic Water Piping Specialties
22 1123	Domestic Water Pumps
22 1316	Sanitary Waste and Vent Piping
22 1319	Sanitary Waste Piping Specialties
22 1413	Facility Storm Drainage Piping
22 1423	Storm Drainage Piping Specialties
22 1513	General-Service Compressed-Air Piping
22 3400	Fuel-Fired Domestic Water Heaters
22 4213.13	Commercial Water Closets
22 4216.13	Commercial Lavatories
22 4216.16	Commercial Sinks
22 4500	Emergency Plumbing Fixtures
22 6600	Chemical-Waste Systems for Laboratory and Healthcare Facilities
23 0130.51	HVAC Air Duct Cleaning
23 0500	Common Work Results for HVAC
23 0513	Common Motor Requirements for HVAC Equipment
23 0516	Expansion Fittings and Loops for HVAC Piping
23 0517	Sleeves and Sleeve Seals for HVAC Piping
23 0518	Escutcheons for HVAC
23 0519	Meters and Gages for HVAC Piping
23 0523	General-Duty Valves for HVAC Piping
23 0529	Hangers and Supports for HVAC Piping and Equipment
23 0553	Identification for HVAC Piping and Equipment
23 0593	Testing, Adjusting and Balancing for HVAC
23 0713	Duct Insulation
S23 0719	HVAC Piping Insulation
23 0900	Instrumentation and Control for HVAC
23 0993	Sequence of Operations for HVAC Controls
23 1123	Facility Natural-Gas Piping
23 2113	Hydronic Piping
23 2116	Hydronic Piping Specialties

23 2513	Water Treatment for Closed-Loop Hydronic System
23 3113	Metal Ducts
23 3300	Air Duct Accessories
23 3423	HVAC Power Ventilators
23 3600	Air Terminal Units
23 3713	Diffusers, Registers and Grilles
23 5216	Condensing Boilers
23 7313	Modular Indoor Central-Station Air-Handling Units
23 7423.13	Packaged, Direct-Fired, Outdoor, Heating-Only Makeup-Air Units
23 8236	Finned-Tube Radiation Heaters
23 8239.13	Cabinet Unit Heaters
23 8239.16	Propeller Unit Heaters

Work Category Notes:

1. Furnish and install all mechanical and plumbing systems, including domestic water, sanitary and vent, medical gas, vacuum piping, compressed air, water for injection systems, hydronic piping, water heaters, boilers, unit heaters, unit ventilators, air handling units, chillers, cooling towers, snowmelt systems, water features, paint spray booths, VAV boxes, mechanical louvers, radiant heat systems, humidifiers, condensate, heat exchangers, ductwork, insulation, plumbing fixtures, toilet accessories, trench drains, temperature controls including DDC or BMS systems, system commissioning, air and water balancing, etc., indicated by the contract documents (not just limited to the mechanical and plumbing drawings) or as required for a complete installation, including labor, materials, accessories and equipment for a complete installation.
2. Investigate areas prior to demolition activities, reroute and relocate existing services required for occupied operation. Cut, cap, and make safe, all existing plumbing, medical gases, temperature controls and HVAC systems in renovated areas prior to demolition. Properly identify and mark system and components to be removed.
3. All cutting, capping, coring, patching and firesafing of walls, floors, ceilings, etc., required for the installation of this work. Patch and repair work is to be done professionally by skilled craftsmen. All such openings require prior written approval from the Construction Manager, before work begins. Furnish and install all sleeves and or misc. steel in walls, floors, roofs and ceilings that may be required by this W.C.
4. Furnish drawings showing size and location of concrete pads required for mechanical equipment to Construction Manager. Installation of these pads is by W.C. 10.
5. All utility connection, disconnections, tie-ins, crossovers, shut downs and similar work must be performed and scheduled so they will not interfere with other work. It may be necessary to make these changes during "off" hours, or it may be necessary to make "hot tap" connections. The contractor should plan on premium time for this work. Coordinate with the Construction Manager prior to performing this work.
6. Furnish access panels where required for the wall and ceiling valves, dampers and controls that are not shown on the Architectural/Mechanical plans but are necessary for the Mechanical Systems.
7. Extreme care is to be taken when installing hangers and equipment in the area that has "spray on fireproofing", so as not to damage it. This contractor will be responsible for patching fireproofing in case of damage by this trade. This work is to be performed by a qualified contractor so that the warranty

will not be affected.

8. Furnish all hoisting, lifting, scaffolding and handling of all materials required to complete this work category.
9. The Electrical, Fire Protection, and Mechanical Contractors will be required to coordinate in a formal coordination process to accomplish the rough-in and final layout as required and specified in Section 1049. Any relocation required to coordinate work will be done at no additional cost to the Owner. All contractors are required to furnish layout and coordination prints for their work prior to these meetings allowing the team to be better prepared at each coordination meeting. Detailers will be provided by this contractor to accomplish this coordination. These meetings shall be coordinated with the construction manager and shall be held on-site.
10. Provide and install mechanical equipment tags, pipe identification and other required identification of signage related to his work.
11. Run the various building piping systems out five (5) feet from the building walls and make the final connections to underground systems.
12. The mechanical contractor will provide assistance during concrete pours to guarantee the proper elevation of drains is maintained during the concrete pour. Accommodate floor finishes when calculating elevations.
13. Furnish and install all roof curbs and necessary or required auxiliary steel framing for equipment supplied under this W.C. This includes any auxiliary steel required at roof openings not shown on the structural drawings, or for pipe hangers and plenum stiffeners.
14. A coordination meeting will be set up between the controls contractor, mechanical contractor, electrician, and construction manager prior to control work. This will include all required work for a complete system as indicated in the construction documents.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this work category:

1. Include work associated with keynote 24 on sheets A-012, A-103 & A-014
2. At the time of submitting bid, include the name of the balancing and controls contractor that is included within your bid.
3. Field verify rerouting of line in Precision Machining Technology 410.
4. Field verify routing of gas line on roof for culinary equipment. Do not assume that routing shown on P series drawings is accurate. Include manufactured standoffs with slip sheets. Wood block is unacceptable.
5. Coordinate food service requirements for rough ins with WC 29.
6. Furnish and install electrical disconnects for all mechanical equipment per schedule shown on sheet M-300.

Related Work by Others:

1. Concrete equipment pads by WC 20
2. Roof vents flashing and counter flashing by WC 14
3. Power supply to mechanical equipment by WC 28
4. Counter tops to be cut by WC 20
5. Demolition of existing mechanical after cut cap and make safe by this WC by WC20.

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 27

Work Category No. 28 – Electrical Systems**Work Included:**

The subcontractor shall timely perform all Electrical work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Contract Forms and General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

26 0000	General Electrical Provisions
26 0500	Common Work Results for Electrical
26 0519	Low-Voltage Electrical Power Conductors and Cables
26 0523	Control-Voltage Electrical Power Cables
26 0526	Grounding and Bonding for Electrical Systems
26 0529	Hangers and Supports for Electrical Systems
26 0533	Raceway and Boxes for Electrical Systems
26 0544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
26 0553	Identification for Electrical Systems
26 0900	Electrical Demolition
26 0923	Lighting Control Devices
26 2200	Low-Voltage Transformers
26 2416	Panelboards
26 2726	Wiring Devices
26 2813	Fuses
26 2816	Enclosed Switches and Circuit Breakers
26 2913	Enclosed Controllers
26 2923	Variable-Frequency Motor Controllers
26 4313	Surge Protection
26 5100	Interior Lighting
26 5600	Exterior Lighting
27 0500	Common Work Results for Communications
27 0528	Pathways for Communications Systems
27 0544	Sleeves and Sleeve Seals for Communications Pathways and Cabling
27 1100	Communications Equipment Room Fittings
27 1500	Communications Horizontal Cabling
27 5123.50	Educational Intercommunications and Program System
27 5313	Clock and Program System
28 0500	Common Work Results for Electronic Safety and Security
28 0513	Conductors and Cables for Electronic Safety and Security
28 0526	Grounding and Bonding for Electronic Safety and Security
28 0528	Pathways for Electronic Safety and Security
28 0544	Sleeves and Sleeve Seals for Electronic Safety and Security
28 1300	Access Control
28 3111	Digital, Addressable Fire-Alarm System

Work Category Notes:

- I. Furnish and install all electrical systems, including power, lighting, site lighting, fire alarm, public address system, lightning protection system, clocks and clock system, telephone/data and CATV systems, system commissioning, etc., indicated by the contract documents (not just limited to the electrical drawings) or

- as required for a complete installation, including labor, materials, equipment, adhesives, fasteners, supports, hangers, grounds, blocking, shims and all necessary anchoring devices and accessories.
2. Investigate areas prior to demolition activities, reroute and relocate existing services required for occupied operation. Cut, cap, and make safe, all existing electrical systems in renovated areas prior to demolition. Properly identify and mark system and components to be removed by others.
 3. All cutting, capping, coring, patching and firesafing of walls, floors, ceilings, etc., required for the installation of this work. Patch and repair work is to be done professionally by skilled craftsmen. All such openings require prior written approval from the Construction Manager, before work begins. Furnish and install all sleeves and or misc. steel in walls, floors, roofs and ceilings that may be required by this W.C.
 4. Furnish drawings showing size and location of concrete pads indicated on the drawings for electrical equipment to the Construction Manager. Installation of these pads is by W.C. 10. All excavation, backfill and compaction related to this W.C. Suitable backfill will be required by this trade and this contractor will be responsible for removal (from site) of all unsatisfactory fill in accordance with the documents.
 5. All utility connection, disconnections, tie-ins, crossovers, shut downs and similar work must be performed and scheduled so they will not interfere with other work. It may be necessary to make these changes during "off" hours, or it may be necessary to make "hot tap" connections. The contractor should plan on premium time for this work. Coordinate with the Construction Manager prior to performing this work.
 6. Furnish access panels where required for the wall and ceiling valves, dampers and controls that are not shown on the Architectural/Electrical plans but are necessary for the Electrical Systems.
 7. Extreme care is to be taken when installing hangers and equipment in the area that has "spray on fireproofing", so as not to damage it. This contractor will be responsible for patching fireproofing in case of damage by this trade. This work is to be performed by a qualified contractor so that the warranty will not be affected.
 8. Furnish all hoisting, lifting, scaffolding and handling of all materials required to complete this work category.
 9. The Electrical, Fire Protection, and Mechanical Contractors will be required to coordinate in a formal coordination process to accomplish the rough-in and final layout as required and specified in Section 1049. Any relocation required to coordinate work will be done at no additional cost to the Owner. All contractors are required to furnish layout and coordination prints for their work prior to these meetings allowing the team to be better prepared at each coordination meeting. Detailers will be provided by this contractor to accomplish this coordination. These meetings shall be coordinated with the construction manager and shall be held on-site.
 10. Provide and install panel labeling, identification and other required identification of signage related to his work.
 11. The electrical contractor will provide assistance during concrete pours to guarantee the proper elevation of in-floor items (outlets, activation kits (if applicable), etc) are maintained during the concrete pour. Accommodate floor finishes when calculating elevations.
 12. A coordination meeting will be set up between the controls contractor, mechanical contractor, electrical contractor, and construction manager prior to control work. This will include all required

work for a complete system as indicated in the construction documents.

13. Electrical connections to equipment and devices provided by others, including by not limited to duct detectors, fire dampers, flow and tamper switches, variable frequency drives, power assist door motors, food service equipment, overhead doors, coiling shutters, projection screens, Owner furnished items, etc. Verify construction documents have been coordinated with power requirements of equipment prior to installation of devices.
14. Furnish and install electrical disconnects for all mechanical equipment per schedule shown on sheet M-300.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this work category:

1. This Work Category will be responsible for the pathways for Audio Visual equipment that will be furnished and installed by IISD's contractor. Prior to installation, facilitate a coordination meeting with The Christman Company, IISD and their contractor.

Related Work by Others:

1. Concrete equipment pads by WC 20
2. Temperature Control wiring and conduit associated with the mechanical systems by WC 27

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 28

Work Category No. 29 - Food Service Equipment

Work Included:

Complete all Food Service Equipment work in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, etc.), Addenda, Specification Sections:

11 4000 Foodservice Equipment
23 3813 Commercial-Kitchen Hoods

Including but not limited to the following:

1. Furnish and install all food service equipment as indicated in the specifications and drawings including the concession rooms.
2. Wire and interconnect all components of food service equipment up to the point of connection with electrical and plumbing supply system.
3. Food service equipment contractor shall furnish loose to WC 27 all hardware required for a complete installation.
4. Supply and installation of roof curbs for ventilation and other roof top equipment supplied by this work category.
5. This trade is responsible for the cutting of roof decking for any openings and protection of same until equipment is installed.
6. Complete assembly of all shelving and storage rack systems.
7. Supply and install equipment, tables, racks, carts, etc., as specified.
8. Compliance with local codes for Health Department approval.
9. Includes all layout required for the performance of this work category.
10. Clean up and legal disposal of construction debris related to this work.
11. Furnish and install hood fire protection systems complete.
12. The FSEC is responsible for reviewing all construction drawings as they relate to kitchens and concessions rooms.
13. Full compliance with all the safety regulations and requirements of OSHA, MIOSHA, State Authorities, Local Authorities and the Construction Manager. Failure to do so will cause this contractor to be removed from the site.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this work category:

This Work Category will be responsible for the pathways for Audio Visual equipment that will be furnished and installed by IISD's contractor. Prior to installation, facilitate a coordination meeting with The Christman Company, IISD and their contractor

1. Include work associated with demolition key notes 44 & 45 on Sheet A012.

Related Work by Others:

1. Final electrical connections by WC 28
2. Final plumbing connections by WC 27

3. Final HVAC connections by WC 27

Alternates:

Reference Specification Sections 01030 and 01100, "Alternates".

Allowances:

Not applicable to this work category.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

Trade Contract Proposal Pre-Submission Checklist

- Trade Contract Proposal Form completely filled out?
- Form signed by authorized officer of firm?
- Performance and Labor & Material Bond costs included in base bid proposal sum? (Proposals over \$50,000)
- All taxes included in base proposal sum?
- Bid security (bond or certified check or money order) of at least 5% of base proposal sum included?
- Completed Familial Disclosure Form?
- Requested alternates & unit prices quoted?
- All information (proposal, bond, Familial Disclosure, etc.) Submitted in duplicate?
- Proposal submitted in sealed envelope per specifications?



TRADE CONTRACT PROPOSAL FORM

WORK CATEGORY NO. 00 and _____

Date: _____

TO: The Christman Company
Capital Area Career Center Room
605/606 611 Hagadorn Road
Mason, Michigan 48854

Re: Ingham Intermediate School District
CACC Interior Renovations
611 Hagadorn Road
Mason, Michigan 48854

Gentlemen:

Having carefully examined General Conditions, Supplementary Conditions, General Requirements, Advertisement for Bids, Instructions to Bidders, Proposal Section, Specifications, Drawings, all Addenda issued, Work Category Descriptions, and understanding the scope of work involved in this Work Category (ies) and those that interface with it (them), the undersigned does hereby propose to furnish all labor, materials, insurances, taxes, tools, equipment and services to complete all work required for the Work Category(ies) indicated in accordance with the Work Category Description and the Contract Documents prepared by Hobbs + Black Architects.

BASE PROPOSAL SUM: _____

_____ (\$ _____)

PERFORMANCE & PAYMENT BOND: The Trade Contractor may be required to furnish a Co-Obligee Labor & Material Payment & Performance Bonds for the full contract amount.

The name of the Bonding Company is: _____.

The sum of (\$ _____) to cover cost of furnishing these bonds is included in the base bid.

EXPERIENCE MODIFICATION RATING (EMR):

List the EMR for your firm as determined by your insurance carrier for the past three (3) years.

2010 _____ 2011 _____ 2012 _____

ADDENDA: The following Addenda have been received, are hereby acknowledged, and their execution is included in Bid Sums listed herein.

No _____ Dated _____ No _____ Dated _____ No. _____ Dated _____

TIME AND MATERIAL RATES: Replace with itemized form to be submitted at bid? Including sub-tier subcontractors

Labor rates listed below include the following:

Bidder's Name

TRADE CONTRACT PROPOSAL FORM

WORK CATEGORY NO. 00 and _____

Date: _____

Cost of labor including Michigan Single Business Tax, Social Security and Medicare, Federal and State Unemployment Tax, and Fringe Benefits Under Collective Bargaining Agreements, and Worker's Compensation Insurance. The rates listed below do not include overhead and/or profit. These rates are only for additions and/or deletions to the contract that could not have been anticipated at the time of the bid.

	TRADE	STRAIGHT TIME	SHIFT TIME	1 1/2 TIME	DOUBLE TIME
1					
2					
3					
4					
5					
6					

MANDATORY ALTERNATES:

Reference Specification Section 01100 for alternate descriptions.

- Alternate #1 Toilet Room 202F (Work Categories 20 & 22) Add \$ _____
- Alternate #2 Interior Signage (Work Categories 20, 21 & 24) Add \$ _____
- Alternate #3 Existing Terrazzo & Base Refinishing (Work Category 22) Add \$ _____
- Alternate #4 Plastic Laminate (Work Category 20) Add \$ _____
- Alternate #5 Ceiling Painting (Work Category 24) Add \$ _____

UNIT PRICES:

Attach unit prices applicable to work category descriptions.

VOLUNTARY ALTERNATIVES (Variations From Materials Specified):

Undersigned proposes the following voluntary alternates for materials and/or equipment specified, it being understood that, should any voluntary alternate(s) be accepted by the Owner, applicable amount(s) hereinafter listed will be added to or deducted from the Base Bid. Voluntary Alternates are considered proprietary information to the extent allowed by law and will not be read aloud at time of bid opening

- 1. _____ \$ _____ (Add/Deduct)
- 2. _____ \$ _____ (Add/Deduct)
- 3. _____ \$ _____ (Add/Deduct)

TRADE CONTRACT PROPOSAL FORM

WORK CATEGORY NO. 00 and _____

Date: _____

SCHEDULE:

The undersigned if awarded a Contract, agrees to work concurrently with the work of other Trade Contractors and the Construction Manager, according to the "Approved Construction Schedule."

BIDDER'S CERTIFICATE:

I hereby certify that all statements herein are made on behalf of

(Name of Corporation, Partnership or Person Submitting a Bid)

A Corporation organized and existing under the laws of the State of _____

An individual doing business as _____

Signature:

Title:

Address:

Phone:

Fax:

Email:

Job No.

Work Category:

**** Subcontract Agreement ****

THIS AGREEMENT, initiated this day, , and as executed herein, is by and between: , with its principal place of business located at: 208 N. Capitol Avenue, Lansing, MI 48933-1357 (hereinafter called the Contractor) and , with its principal place of business located at: , , (hereinafter called the Subcontractor).

WITNESSETH:

That and this Subcontractor, for the good and valuable consideration identified herein, which the parties acknowledge is sufficient, do hereby agree to the following:

ARTICLE I - PROJECT:

The Subcontractor agrees to timely, properly and completely perform and pay for all of the Work, as described in Article IV, for the Contract Sum stated below on the following Project: ; located at: , , for the Owner: , et al. as set forth herein.

ARTICLE II - CONTRACT DOCUMENTS:

The Contract Documents consist of this Agreement and the attached exhibits, the scope of Work identified herein, and shall be in accordance with the following bid documents prepared by: located at: , , (herein called the Architect and/or Engineer), including all precontract addenda and subsequent modifications, which documents are incorporated herein by reference and made a part of this Agreement as if fully repeated and which the Subcontractor acknowledges it has completely and thoroughly reviewed and understands, which bid documents include the following:

DRAWINGS:

See attached Subcontract Agreement Supplement 'A'.

SPECIFICATIONS:

See attached Subcontract Agreement Supplement 'A'.

ADDENDA:

See attached Subcontract Agreement Supplement 'A'.

ARTICLE III:

In consideration of the timely, proper and complete performance of the Work identified herein, Contractor shall pay the Subcontractor, in current funds, the following firm Contract Sum, subject to additions or deletions by Change Order or Construction Change Directive, as provided in the Contract Documents.

CONTRACT SUM:

***** DOLLARS*****

. Work Category

Total for Subcontract:

Job No.

Work Category:

ARTICLE IV - SCOPE OF WORK:

A. SEE ATTACHED SUBCONTRACT AGREEMENT SUPPLEMENT 'A'.

Except as otherwise provided in this Subcontract ("Agreement"), Subcontractor shall furnish all labor, materials, tools, equipment, insurance, taxes, supervision, services and all other items and costs necessary to properly and timely prosecute and complete the Work identified and described on Supplement A attached hereto (the "Work"), as well as all Work reasonably implied and inferred by Contractor from Supplement A, being a portion of the work required of Contractor under its contract with Owner. The Work shall be performed by Subcontractor in a good and workmanlike manner strictly in accordance with this Agreement and the Contract Documents listed in Article II which are incorporated herein by reference.

ARTICLE V - GENERAL PROVISIONS OF THIS AGREEMENT:

ACCEPTANCE OF THIS CONTRACT CONSTITUTES AN AGREEMENT WITH THE FOLLOWING CONDITIONS:

A. ENTIRE AGREEMENT:

1. This Agreement supersedes and cancels any prior written or verbal agreements, and shall constitute the only agreement between the parties hereto with respect to the Work or any portion thereof covered by this Agreement; and further, notwithstanding any rules regarding conflicts of laws, both parties agree that should any judicial interpretation of this Agreement be required, then in that event, the laws of the State where the Project is located shall apply. For all purposes, the term "State" shall include all fifty states as well as the District of Columbia, Puerto Rico and any other unincorporated territory of the United States.

2. With the exception of backcharges for Work not timely, properly or completely performed by Subcontractor, no terms of this Agreement or the nature and extent of the Work under this Agreement may or shall be waived, modified or enlarged, except in writing signed by all the parties hereto.

B. INCORPORATED TERMS:

1. All terms, conditions and requirements of the Main Contract between the Owner and the Contractor (herein after called the Main Contract) including but not limited to its contract documents, but specifically excluding payment and dispute resolution provisions, are incorporated herein and made a part of this Agreement. The Subcontractor assumes toward the Contractor all the obligations and responsibilities specifically including, but not limited to, any insurance, indemnity and defense obligations that the Contractor, by these documents, assumes toward the Owner insofar as the same are applicable to the Work covered in this Agreement; and, except as specifically provided herein, said Subcontractor shall not have any rights which the Contractor does not have to the Owner under any of the documents referenced herein. In addition, all terms, conditions and requirements of this Subcontract shall be incorporated by reference into any other agreements entered into by Subcontractor in connection with the Project. It shall be Subcontractor's obligation and responsibility to see to it that its contracts are drafted consistent with this provision. The sub-subcontractors shall assume towards the Subcontractor all the obligations and responsibilities specifically including, but not limited to, any insurance, indemnity and defense obligations that the Subcontractor, by these documents, assumes toward the Contractor insofar as the same are applicable to the Work covered in this Agreement.

2. The Subcontractor will perform all Work under this Agreement subject to all the terms and conditions expressed or implied in said documents relating to such Work, it being the full intention hereof that said Subcontractor will fully, properly and faithfully discharge all obligations of the Contractor relating thereto. The Subcontractor warrants that it has truly and fully acquainted itself with the site, all site conditions, and the contract documents relating to the work to be done by the Contractor for the Owner.

3. If the Work requires Subcontractor to procure design services, the Subcontractor shall provide those design services necessary to satisfactorily complete the Work. Design services provided by Subcontractor shall be procured from licensed design professionals retained by the Subcontractor as required by the law of the place where the Project is located (the Designer). The Designer's seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by Designer. Contractor shall be entitled to rely upon the adequacy, accuracy and completeness of the services and certifications or approvals performed by Designer. The Subcontractor shall be responsible for conformance of its design with the information given and the design concept expressed in the Contract Documents.

Job No.

Work Category:

C. APPROVAL:

1. This Agreement shall be expressly contingent upon the Subcontractor being approved by the Owner or authorized agent thereof, provided, however, the Subcontractor shall have five (5) days after notice in the event the Subcontractor is disapproved, in which to attempt to overcome its disqualification to the sole satisfaction of the Owner: otherwise this Agreement shall be deemed null and void.

D. AGREEMENT INTERPRETATION:

1. To the extent which the contract documents of the Main Contract give to the Architect and/or Engineer or Owner various power to determine quantities, quality and other factors relating to the performance of work under said Main Contract, the determinations of such Architect and/or Engineer, known hereafter as Owner's contracting authority, or Owner, shall be binding on the Subcontractor to the same extent they are binding on Contractor.

E. INSPECTION, SUBMITTALS AND SUBSTITUTIONS:

1. The Owner, Architect and/or Engineer, or the Contractor and/or their representatives, shall have full and free access at reasonable hours to the shops, factories, or other places of business of the Subcontractor, or its sub-subcontractors or suppliers, in order that the Contractor may inform itself as to the general condition and progress of the Work herein contemplated.

F. BONDS:

1. If bonds are required at any time by the Contractor, the Subcontractor shall pay for and deliver a separate Performance Bond and a separate Labor & Material Payment Bond in the forms acceptable to the Contractor and each in the full amount of this Agreement, issued by a surety company with an AM Best rating of A or better, approved to do business in the State where the Project is located, and acceptable to the Contractor and duly executed by those agents with complete Power of Attorney to the full limits therein.

2. The Contractor shall have the right, without notice to such surety company, to order changes in the performance or time of performance of this Agreement necessary to conform to changes in the Main Contract. The above provision shall not prejudice the right of the Contractor to require of the Subcontractor additional performance and payment bonds equal to any increase in the value of the work.

G. TAXES AND BENEFITS:

1. The Subcontractor accepts and assumes exclusive liability for and shall defend, indemnify and save harmless the Contractor and the Owner against the payment of:

a. All contributions, taxes or premiums which may be payable under Federal and State Unemployment Compensation, Federal Social Security Act, hospitalization and medical assistance and all other Governmental Agency Regulations covering employees, by whomsoever employed, engaged in the performance of the work included in this Agreement.

b. The contributions and fringe benefits measured by wages of its employees and the employees of its subcontractors required by the Social Security Act, The Federal Income Tax, unemployment tax or any tax under the laws of the State where the Project is located requiring the employer to make withholdings from the wages of the employees, and the Subcontractor accepts exclusive liability for all of such withholding. The Subcontractor shall certify before receiving a final payment that all such taxes or sums required to be withheld from the employees are paid.

c. All sales, use or other taxes, payable by the Subcontractor arising out of the furnishing or installing by the Subcontractor of any and all kinds of material, equipment or personal property under this Agreement.

d. All union health, vacation, pension, travel pay, and other fringe benefits; dues, apprenticeship or industry advancement funds; which may be measured by wages of his employees or sub-contractors; shall be paid by the Subcontractor.

Job No.

Work Category:

H. INSURANCE:

1. The Subcontractor warrants and represents that it is protected by occurrence based policies of insurance for general liability, including comprehensive, products and completed operations, hazard, contractual and independent contractors, and where applicable, underground hazard and/or explosion and collapse, as well as automobile liability, workman's compensation and employer's liability and agrees to maintain such protection in full force and effect for the duration of the Subcontractor's work and to furnish certificates and policies identifying the Owner, Architect and/or Engineer, and their Directors, Officers and Agents as an additional insureds including under the Subcontractor's completed operations coverage, and including other parties, if so specified. Insurance covering the specified additional insured parties shall be primary insurance and all other insurance carried by the additional insured parties shall be excess insurance.

2. The Subcontractor shall maintain all policies and the full liability limits specified within the Main Contract. If no limits are specified in the Main Contract, the following limits shall apply:

- a. Worker's Compensation
 - Statutory Limit
 - \$500,000 Employer's Liability

- b. Commercial General Liability
 - 1) Bodily Injury
 - \$2,000,000 Each Occurrence
 - \$2,000,000 Project Aggregate

 - 2) Property Damage
 - \$2,000,000 Each Occurrence
 - \$2,000,000 Project Aggregate

Subcontracts greater than \$3,000,000.

 - 1) Bodily Injury
 - \$5,000,000 Each Occurrence
 - \$5,000,000 Project Aggregate

 - 2) Property Damage
 - \$5,000,000 Each Occurrence
 - \$5,000,000 Project Aggregate

- c. Comprehensive Automobile Liability
 - 1) Bodily Injury
 - \$2,000,000 Each Occurrence
 - \$2,000,000 Project Aggregate

 - 2) Property Damage
 - \$2,000,000 Each Occurrence

The above limits may be achieved through any combination of underlying and excess (umbrella) coverage. Unless the Main Contract provides for insurance by and at the expense of the Owner which will protect the Subcontractor against loss, the Subcontractor shall provide for all of his own insurance of every kind.

3. All insurance certificates and policies shall be submitted to Contractor prior to the performance of any Work on site. All certificates and policies shall contain provisions for a 30 day prior written notice to the Contractor and other certificate holders of any pending change or cancellation. If the Subcontractor becomes uninsured for any liabilities specified; such default shall be regarded as a material breach of contract, subject to the provisions of Article U herein.

4. All insurance coverage procured by the Subcontractor shall be provided by insurance companies which have policy holder ratings not lower than "A" and financial ratings not lower than "XI" in the Best's Insurance Guide, latest edition in effect as of the date of the Agreement.

Job No.

Work Category:

-
5. Products and Completed Operations insurance shall be maintained for a minimum period of at least six (6) years after either the actual Project Substantial Completion Date or final payment, whichever is earlier.
6. In the event of loss or damage resulting from perils to material, equipment or structures owned by the Subcontractor, the Subcontractor will look solely to its own insurance for reimbursement for any such loss or damage. The Subcontractor, in signing this Agreement, agrees to hold harmless and defend the Contractor and Owner for any loss or damage to such materials, equipment, and structures.
7. The Subcontractor will be held responsible for any damage to existing structures, Work, materials, or equipment because of its operations and shall repair or replace any damaged structures, Work, materials, or equipment to the satisfaction of, and at no additional cost to the Contractor and/or Owner. The Subcontractor shall be solely and exclusively responsible for any and all insurance deductibles for insurance arising out of or relating to, directly or indirectly, any and all claims in connection to its Work, including but not limited to those claims which would or could be covered by any Builder's Risk insurance policy issued for the Project.
8. The Subcontractor unconditionally waives all of its rights and shall require its insurance carriers, with respect to all insurance policies, to unconditionally waive all rights of subrogation against the Owner, Contractor, and Architect and/or Engineer, their parent companies, affiliates, subsidiaries, partners, directors, officers, agents, and employees and against all other subcontractors, vendors and/or suppliers.
9. Subcontractor represents that its sub-contractors of any tier will provide and maintain the same insurance coverages and conditions as specified in the Article H, including insurance certificates which show the Contractor, Owner, Architect and Engineer as additional insureds. Subcontractor shall provide copies of Certificate of Insurance to the Contractor if requested by the Contractor.

I. SAFETY:

1. Subcontractor acknowledges receipt of the Contractor's Safety Program and Subcontractor agrees to cooperate and comply with the Owner and/or the Contractor's Safety Program, to take all reasonable precautions and primary responsibility for the safety of its employees on the projects, to assist in the prevention of accidents or injury to persons on or adjacent to the premises where the work is being performed, and to comply with all federal, state and local safety laws and ordinances applicable to the work. Subcontractor further acknowledges and accepts full and primary responsibility for safety on the site as it relates to Subcontractor's operations and employees. The Subcontractor agrees to submit to the Contractor, a current Safety Program and Experience Modification rates for Subcontractor and any sub-subcontractor working at the Project site.
2. All labor, materials and equipment consumed or supplied under this Agreement shall conform to provisions of the Williams Steiger Occupational Safety and Health Act of 1970, and any and all regulations as imposed by the State in which the Work is being performed. It is the responsibility of the Subcontractor to furnish its employees a place of employment free from recognized hazards that are causing, or likely to cause death or serious physical harm. The Subcontractor shall indemnify and defend the Contractor and be liable for damages as the result of the failure of any Subcontractor employee, or the employees of any of its sub-subcontractors, agents, invitees, vendors or suppliers, to follow the provisions as set forth above.
3. The Subcontractor shall immediately notify Contractor and provide Contractor with copies of all OSHA citations and accident reports, and the Subcontractor shall immediately correct or remedy nonconforming practices or installations.
4. The Subcontractor hereby agrees to release, hold harmless, indemnify and defend the Contractor and the Owner from and against any loss, delay, fine, remedial costs, attorney fees, penalties, interest, action or cause of action arising out of any breach, in whole or in part, by the Subcontractor of this Article.
5. The Subcontractor expressly agrees and understands that the Subcontractor shall abide by all state and federal requirements dictated by the Right To Know Laws where the Project is located. Further, the Subcontractor shall furnish the Contractor copies of Material Safety Data Sheets (MSDS) for all materials to be used in the execution of this work.
6. The Subcontractor shall immediately correct any unsafe condition(s) identified by Contractor. If Subcontractor fails to immediately correct such unsafe conditions, Contractor may either (1) have the unsafe conditions corrected by others at Subcontractor's expense, or (2) direct that the Work be stopped in the area of the unsafe condition.

Job No.

Work Category:

7. Subcontractor represents that its sub-subcontractors of any tier will abide by the provisions of this Article I.

J. EQUAL OPPORTUNITY:

1. Subcontractor shall not discriminate against any person with respect to his/her hire, tenure, terms, conditions or privileges of employment because of race, color, age, sex, religion, sexual orientation, the presence of a physical, sensory or mental disability, or national origin.

2. The Subcontractor agrees to comply with all provisions of any applicable State or Federal Fair Employment Practices Code or any similar code applicable in the location where the Project is located.

3. The Subcontractor also agrees to, when dictated by the Main Contract, be awardable by and in compliance with the directives and guidelines of the Contract Compliance Division of the state and federal Civil Rights Commission or any similar commission in the jurisdiction where the Project is located.

Subcontractor is responsible for all labor relations matters relating to its performance of the Work and shall at all times maintain harmony among the personnel employed by it and its subcontractors in connection with the Project and those of the Contractor and Owner. Subcontractor shall implement policies and practices to avoid work stoppages, slowdowns, disputes and strikes. Subcontractor shall notify Contractor promptly of any actual or potential labor dispute that may affect the Work. If a labor condition threatens the timely completion of any portion of the Work and Subcontractor, Contractor may, at its option, terminate Subcontractor's right to proceed with Work for default or employ workers to perform the affected Work and backcharge Subcontractor the cost thereof.

Neither Subcontractor, nor any of its sub-subcontractors shall engage in any harassment or offensive behavior in connection with the Work. Harassment and offensive behavior includes, but is not limited to, requests to engage in illegal or unethical conduct, or negative comments or actions based on any person's race, color, age, sex, religion, sexual orientation, the presence of a physical, sensory or mental disability, or national origin. Subcontractor shall immediately address any claim of harassment or offensive behavior involving it or its sub-subcontractors, properly discipline any person determined to have engaged in such conduct, including removal from the Project where appropriate and use its best efforts to ensure that such conduct does not reoccur.

Subcontractor represents and warrants that it is, and will remain, in compliance with any and all provisions of the Immigration Reform & Control Act of 1986, as amended, the Immigration and Nationality Act, as amended, the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended and all other applicable immigration laws, rules, and regulations, including form I-9 verification, E-Verify, and record keeping requirements. At Contractor's request, Subcontractor shall submit a certification, acceptable to contractor that its employees have presented the correct documents to legally work in the United States.

K. AGREEMENTS AND ASSIGNMENT:

1. The Subcontractor shall not assign, subcontract and/or sublet this Agreement or any portion thereof, without the prior written consent of the Contractor. Consent will not be given to any proposed agreement which would relieve the Subcontractor or its surety of their responsibilities under this Agreement.

2. The Subcontractor shall make no assignment of any monies due under this Agreement, or which may become due hereunder, without the prior written consent of the Contractor.

L. COOPERATION WITH OTHERS:

1. The Subcontractor agrees to cooperate with the Contractor and with all other subcontractors, vendors and suppliers with whose work Subcontractor may come in contact with or with whom the Subcontractor's schedule may be affected by, in order to avoid any conflict, and to insure a first class workmanlike job in every respect.

2. In consideration of the permission by the Contractor to use any tools or equipment of any nature whatsoever, including but not limited to elevators, hoists, derricks, cranes, side tracks, yards, or any instrument used in or for the erection of this Project or otherwise, under the terms of any contract between us, verbal or written, pending the completion of such contract, it is understood and agreed that the Subcontractor assumes

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complete responsibility and liability for the use or operation of said equipment and to indemnify, defend and hold harmless the Contractor, against any damage, claim, liability, costs or expense whatsoever, accruing or arising in any manner whatsoever because of Subcontractor's use or operation of said equipment or use of same for Subcontractor's benefit, by reason of any accident of any nature to persons or property caused thereby, irrespective of who shall actually operate the equipment.

3. Subcontractor shall be responsible for any theft, loss, damage or injury to any of its materials, equipment or tools.
4. Unless otherwise directed in writing by Contractor, the Subcontractor shall do all cutting, fitting, and patching of its Work that may be required to make its several parts come together properly and to fit it to receive or be received by work of the other trades.

M. CLEAN UP:

1. Subcontractor shall at all times keep the Project and Owner's premises, adjoining premises, streets, and building clear of rubbish caused by its operation and its workmen, and shall remove all such rubbish at its own expense, as directed by the Contractor. If the Subcontractor shall fail to clean the site to the satisfaction of the Contractor and/or the Owner then the Contractor may do the necessary cleaning and charge the cost thereof to the Subcontractor.

N. PROTECTION OF FINISHED WORK:

1. Subcontractor will protect all its materials and Work from hazards and be fully responsible for their condition until accepted by the Owner and also shall be responsible for any damage caused by Subcontractor or its sub-subcontractors or suppliers to the work or property of others including but not limited to the property of the Owner, the Contractor or the property of adjacent land owners, utilities, roads, bridges and waterways.
2. The Subcontractor shall be responsible for damages, defects, defacements or delay of the Project caused in whole or in part by its negligence, and shall forthwith, at its own expense, correct same or accept a reduction in price in the amount of the excess cost incurred by the Contractor or demanded by the Owner, as a result of such default.

O. PAYMENT:

1. For the Work performed by the Subcontractor under this Agreement, the Contractor shall make partial payments to the Subcontractor out of progress payments already received by the Contractor from the Owner the receipt of such progress payments being a strict condition precedent to any payments to the Subcontractor. The Subcontractor will be paid for the Work in place and materials properly stored by the Subcontractor, less retainage, as held by the Owner and/or the Contractor. No payment shall be in any respect taken as an admission by the Contractor of the amount of Work done, its classification, quality or sufficiency of the sum due the Subcontractor or as an acceptance or release of the Subcontractor's responsibility under the terms of this Agreement. After the first partial payment so made to the Subcontractor, the Contractor shall have the right to withhold any subsequent partial payments unless the Subcontractor furnishes with each request for payment, satisfactory sworn statement and unconditional waiver of lien or bond claim by the Subcontractor for itself and all lower-tier sub-contractors, suppliers, payrolls and all such indebtedness connected with the Subcontractor's Work which were reflected in previous payment requests, and for which payment has been made to the Subcontractor by the Contractor. All material and equipment for which the Subcontractor is paid shall become the property of the Owner and shall not be removed from the Project site. Subcontractor authorizes Contractor to communicate with Subcontractor's vendors, suppliers and sub-subcontractors on payment issues, and to make payment via joint check to any or all of them if, in the sole discretion of Contractor, Contractor determines that joint checks are necessary or appropriate. This authorization is given without the need for any further joint-check arrangements. Any joint check payments made by Contractor shall be deemed to have been made directly to Subcontractor. Upon receipt of a Sworn Statement from Subcontractor, Contractor may issue a joint check for the amount shown on Subcontractors Sworn Statement as due to sub-subcontractor/Supplier less any setoffs, back charges, warranty work or other deductions Contractor may be entitled to. Subcontractor waives any claim against Contractor for any errors that may arise out of this joint check arrangement and accepts full responsibility for the validity any endorsements of the joint check(s). Contractor's right to pay by joint check does not create any obligation to do so, and neither the payees of the joint checks or anyone else shall have third party beneficiary or other rights to enforce this paragraph.

2. Unless the Main Contract between the Owner and the Contractor provides for a different schedule, the Subcontractor will be required to

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cut off monthly costs on the 20th of the month and get its percent completed approved by the Contractor. Once approved by the Contractor, the Subcontractor must then submit the actual invoice to the Contractor by the 25th of the month, in order to receive timely payment.

3. Subcontractor shall, within three (3) days after Contractor's written request, discharge or cause to be discharged any lien related in any way to work of Subcontractor's sub-subcontractors or suppliers. If Subcontractor fails to do so, Contractor at its sole discretion, may use whatever means necessary to remove any such suit, claim or lien and backcharge Subcontractor for the cost of so doing. Further, Subcontractor shall indemnify Contractor for any costs, fees, including actual attorney fees, incurred by Contractor in removing or attempting to remove such suit, claim or lien. If any liens, bond claims or notice of intention to file are received by the Owner, Architect, or the Contractor, the full amount thereof shall be withheld pending adjustment. If the Subcontractor defaults in payment of its debts on this Project, the Contractor shall have the right to pay such debts and charge them to the Subcontractor. This provision shall not be construed as a waiver of the right of the Subcontractor to file and enforce a lien claim against the Owner or bond claim against the Contractor in the event the Contractor fails to pay the Subcontractor. If Contractor determines, in its sole discretion, that the balance of the Contract Sum then remaining unpaid will not be sufficient to complete the Work in accordance with the Contract Documents, no additional payments will be due the Subcontractor under this Agreement unless and until the Subcontractor, at no cost to Contractor, performs, and pays in full for, a sufficient portion of the Work so that such balance of the Agreement Price then remaining is determined by Contractor to be sufficient to so complete the Work. The Subcontractor shall not stop the Work for any reason in the event of any dispute, whether over payments claimed owed or otherwise. A default in any other contract between Subcontractor and Contractor may, in the sole discretion of Contractor, be considered a default under this subcontract and shall entitle Contractor to set off funds owing under this contract for the claims and/or defaults of any other agreements. In addition, Contractor may withhold payment to Subcontractor for any of the following reasons:

- a. Defective Work not remedied; materials not having been furnished; off-site fabrication of materials not meeting production quotas or quality standards; clean-up has not been performed;
- b. Subcontractor has damaged any portion of its Work or the work of others;
- c. Claims, levies, liens, attachments, stop notices or court orders having been filed or reasonable evidence indicating probable filing of such claims, levies, liens, attachments, notices or orders, including claims covered by insurance until such claims are accepted by the insurance carrier;
- d. It is alleged that Subcontractor has failed to make payments properly to its Subcontractors or suppliers for labor (including fringe benefits), materials or equipment, transportation or shipping costs, taxes, fees or any other claims arising out of Subcontractor's Work or Subcontractor fails or refuses to produce proof requested by Contractor that such payments have been made;
- e. There exists reasonable doubt that Subcontractor's Work can be completed for the unpaid balance of the Agreement Price;
- f. Subcontractor is not satisfactorily prosecuting the Work of this Agreement;
- g. Subcontractor has failed to deliver current insurance certificates, bonds, "as built" drawings, written guarantees or warranties or the approvals required of Subcontractor's Work by any authority having jurisdiction;
- h. A petition for bankruptcy or reorganization is filed by or against Subcontractor or Subcontractor has made an assignment without the prior written consent of Contractor;
- i. Subcontractor's license is not valid or lapses, or Contractor determines Subcontractor has no license;
- j. Any violation of any safety rule, law or procedure;
- k. Any other material breach of this Agreement, or any other Contract Documents incorporated herein, by Subcontractor, which has not been cured after three (3) days' notice from Contractor.

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4. The Subcontractor shall be paid out of moneys received by the Contractor for work performed by said Subcontractor within seven (7) days after receipt of such moneys by the Contractor. All payments are to be made to the Subcontractor only out of such equivalent payments received by the Contractor for work done by the Subcontractor. The receipt of such payments by the Contractor shall be a condition precedent to payment to the Subcontractor as stated in paragraph 1 above.

5. Final payment shall be made after completion and the Owner's acceptance of and payment for all work, upon presentation of a final request for payment accompanied by a release or other satisfactory evidence that there are no liens, bond claims, claims or other indebtedness connected with the work of the Subcontractor, and submittal of the Subcontractor's guarantee. Provided however, that if the Owner assesses and retains against the Contractor any liquidated damages, all payments shall be reduced to the extent such assessment is attributable in whole or in part to the Subcontractor's fault and no claim involving such retention may be asserted by the Subcontractor until the assessment is first finally resolved with the Owner. Acceptance of final payment shall be held to be a final waiver of all claims of whatsoever nature against the Owner and the Contractor. All payments, including final payment, shall be out of such equivalent payments received by the Contractor from the Owner. The receipt of such payments by the Contractor shall be a condition precedent to payment to the Subcontractor.

6. Prior to the first application for payment, the Subcontractor shall submit for approval a detailed schedule of values on AIA Form G703 or equivalent. The schedule of values must be broken down by the various aspects and areas of work and include labor and material breakdowns for each work item, general conditions, mobilization, demobilization, punch list and administrative close out. Application for payments will not be processed until the schedule of values has been approved by the Contractor.

P. PAYROLL REPORTS:

1. When required by the Main Contract or the Contractor, the Subcontractor shall submit to the Contractor weekly certified payrolls in compliance with applicable State or Federal Department of Labor Standards. Failure to comply with this requirement will result in the delay or denial of payment of the Subcontractor's invoices. Subcontractor fully indemnifies and defends Contractor against any and all claims that Subcontractor failed to pay wages or benefits as provided under this Agreement or as required by law.

Q. CHANGES AND EXTRA WORK:

1. No extra or additional work shall be done by the Subcontractor except upon the prior express written authority of the Contractor and in the event the Subcontractor proceeds without such written authority, the Subcontractor thereby expressly waives any and all claims for additional payment therefor. No oral waiver of the requirements of prior written authority shall be binding.

2. Any increased price payable to the Subcontractor by virtue of such change shall not become due until a change order has been issued by the Contractor and the Contractor receives payment for that change order from the Owner.

3. The Contractor may, without invalidating this Agreement, make any changes by altering, adding to, or reducing the extent of the Work, including the deletion of any major items of work to be completed under the terms of this Agreement. No change in the extent or scope of such Work shall be made except by a Change Order signed by the Contractor. The charge of credit for any such changes shall be determined, at Contractor's option, by any of the following methods: (1) agreed upon lump sum price, (2) unit prices named in this Agreement or subsequently agreed upon in writing, or (3) time and material. Subcontractor shall submit for approval a quotation covering any change made in the work which affects the Contract Sum. Said quotation shall be submitted promptly upon receipt of notification of the change. The Contract Sum may be adjusted by Contractor by written change order or directive issued by Contractor, with or without consent of the Subcontractor, for backcharges and adjustments to the Contract Sum permitted under this Agreement.

R. PROGRESS:

1. To insure completion of the work under the Main Contract within the time stipulated therefor by the Main Contract, the parties hereto agree that the Work of the Subcontractor must be completed on or prior to the dates mutually set by both parties for the Subcontractor's Work on the approved progress schedule and the Subcontractor will maintain the specified rate of progress as it pertains to the Subcontractor's Work. The Subcontractor shall be subject to liquidated or other damages on the basis expressed in the Main Contract if the Subcontractor is the cause of any sole or concurrent delays which would allow the Owner to assess liquidated or other damages against the Contractor for late completion.

2. Should the Subcontractor in any way cause, in whole or in part, any delay in the progress of the Work due to its own fault or negligence so as

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to cause any loss or damage for which the Contractor suffers or shall become liable, whether or not liquidated damages are specified, the Subcontractor shall compensate the Contractor therefor. If the Subcontractor delays the progress of the work, the Subcontractor shall, at its own cost and expense, work such overtime or provide additional resources as may be necessary or as directed by Contractor to avoid delay in the completion of the Work under this Agreement. Subcontractor further acknowledges that as construction progresses it may be necessary for Contractor to change the sequential order and duration of the various activities, including those contemplated by this Agreement to account for unanticipated delays, occurrences and other factors which act to alter Contractor's original schedule. Contractor may require Subcontractor, at no additional cost to Contractor, to prosecute Subcontractor's Work in such sequence as the progress of other trade contractors and the Project schedule reasonably dictates. It is expressly understood and agreed that the scheduling and sequencing of the Work is an exclusive right of Contractor and that Contractor reserves such right to reschedule and re-sequence Subcontractor's Work from time to time as the demands of the Project require without any additional cost or expense to be paid to Subcontractor.

3. If Subcontractor shall (a) fail to correct, replace and/or re-execute faulty or defective Work and/or materials, (b) fail to complete or diligently proceed with this Agreement within the time herein provided, or (c) be unable to proceed with the Work because of any action by one or more employees of Subcontractor or by a person or labor organization purporting or attempting to represent any employee of the Subcontractor; the Contractor, upon three days' notice to Subcontractor, shall have the right to correct, replace and/or re-execute such faulty, defective or damaged work, or to take over this Agreement with all materials, tools and appliances of the Subcontractor on the premises and complete the remaining work, charging the cost thereof to Subcontractor. Under such circumstances, the Contractor shall also have the right to withhold any and all payments to the Subcontractor until all such cost charges have been paid in full to the Contractor.

4. If delayed, the Subcontractor shall immediately notify the Contractor in writing.

S. DISPUTES:

1. Except as otherwise specifically provided in the Main Contract, any dispute concerning a question of fact arising under this Agreement which involves the Subcontractor and the Owner, which is not disposed of by agreement, shall be decided by the Contractor and/or the Owner's design professional, whose decision, when rendered in writing, shall be final and conclusive. Pending such final decision, the Subcontractor shall diligently proceed with the performance of this Agreement as directed by the Contractor. Should the Subcontractor disagree with the decision of the Contractor and/or the Owner's contracting authority in the disputed matter, the Contractor will bring a claim or appeal on behalf of the Subcontractor when timely requested, in writing, to do so by the Subcontractor. Any cost or expense in connection with such claim or appeal shall be at the sole expense of the Subcontractor.

2. On matters of dispute or disagreement between the Subcontractor and the Contractor, the Subcontractor will give the Contractor timely notice so that the Contractor can give such notices, perform such acts and furnish such information as may be required to resolve the dispute or disagreement. Pending the resolution of such dispute or disagreement, the Subcontractor, without any waiver of its other rights and remedies, agrees not to discontinue work and will diligently proceed with the performance of this Agreement. Any controversy or claim arising out of or related to any provision of this Agreement, or the breach thereof, not disposed of by agreement between the parties shall be subject to a settlement in accordance with the laws of the State of Michigan. [Whether the Main Contract specifically provide for, or is silent thereon, arbitration shall only be used to resolve disputes, if mutually accepted by both the Contractor and the Subcontractor].

3. All disputes and claims that are not disposed of as provided herein shall be resolved by submission to the courts located in Ingham County, Michigan. The parties further agree that Ingham County, Michigan is the proper and exclusive venue for any litigation and that any resort to litigation may only be brought in said county. Due to the specialized nature of construction litigation, each party hereby waives the right to a trial by jury. The parties acknowledge that they had the opportunity to seek the advice of their independent legal counsel before waiving their rights to a trial by jury. Subcontractor consents to personal jurisdiction in any State or Federal Court lying in or whose jurisdiction includes Ingham County, Michigan.

T. CLAIMS:

1. Should the Subcontractor claim any additional losses, costs, damages and expenses, by reason of any act, failure to act, default or interference by the Owner, the Subcontractor will carefully observe all terms and conditions of the Main Contract with reference thereto and will give the Contractor timely notice so that it can give such notices, perform such acts and furnish such information to the Owner as may be required by the Main Contract. The Subcontractor agrees that it will look solely for payment of any sums claimed to be due it, to moneys actually received by the

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Contractor from the Owner, based on such claims.

2. Subcontractor agrees to make any claim for extra work, extension of time, or for damages for delay or otherwise as authorized herein in the same manner and according to the same requirements as provided in the Main Contract and in such time as will enable the Contractor to promptly submit such claims to the Owner for payment or recognition, and the Contractor shall not be liable to Subcontractor on any claim not timely or properly presented or unless allowed to it by the Owner. Any claim involving compensation to be paid to Subcontractor must be submitted within one week of the occurrences of events giving rise to said claim. Strict compliance is an absolute condition precedent to any Subcontractor claim.

3. In the event the Subcontractor's performance is delayed or interfered with by acts of the Owner, the Contractor or other subcontractors, Subcontractor may request an extension of time for performance as hereinafter provided, but shall not be entitled to any increase in the Contract Sum or any additional compensation or consequential damages as a result of such delays or interference except to the extent that the Main Contract entitle the Contractor to compensation from the Owner for such delays and then only that amount which the Contractor shall actually recover from the Owner on behalf of the Subcontractor for such delays. The extension of time, if requested, shall, in the absence of a provision in the Main Contract to the contrary, be the sole and exclusive remedy afforded Subcontractor for any schedule related claim.

4. The parties hereby agree that any damages relating to any claims made under this Agreement must be quantifiable and made with a reasonable degree of certainty. Further, the parties agree that the total cost method or total cost approaches of calculating damages are inherently unreliable and uncertain. Therefore, the parties waive any damages based on the total cost method or total cost approach or any variations or modifications of the total cost approach.

5. This Agreement is a lump sum contract and does not contemplate any changes in the Contract Sum due to material escalations whether in quantity or price. The Subcontractor represents and warrants that it has by its own independent investigation ascertained the quantity and price of the Scope of Work. The Subcontractor waives any claims based on material escalations for price and quantity.

U. DEFAULT AND TERMINATION:

1. Should the Subcontractor default in the performance of any of the requirements of this Agreement or of the Main Contract, applicable to its Work; or fail to provide a sufficient crew of workmen as and when required; or fail to properly prosecute its work; or fail to maintain the progress of its work; or abandon its work; or interfere with the performance of others working on this Project; or fail to pay for: labor employed on the Subcontractor's Work; or fail to pay its sub-contractors or suppliers; or fail to pay or to maintain satisfactory credit relationships for the purchase of supplies, materials, rental equipment, and services; or fail to pay contributions to labor welfare funds, state and Federal payroll taxes, and sales or use taxes; then such default, abandonment, interference or failure shall be considered a breach of this Agreement. In such event the Contractor, at its option, may terminate the Subcontractor's right to proceed by giving the Subcontractor seven (7) days' notice in writing commencing upon the deposit of the same in the United States mail; provided, however, that such notices be null and void if such default is cured, within the notice period, to the complete satisfaction of the Contractor.

2. Upon the expiration of the cure notice period, the Contractor shall be at liberty to immediately or subsequently terminate the employment of the Subcontractor on the said Work and to enter on the site of the Work and take possession, for the purpose of completing the Work included in this Agreement, of all material and equipment of the Subcontractor thereon, and to employ any other person or persons to finish the Work, and to provide materials therefor. The Subcontractor hereby assigns, transfers and sets over unto the Contractor all of the said equipment and/or materials. In case of such discontinuance of the employment of the Subcontractor, the said Subcontractor shall not be entitled to receive any further payment under this Agreement until the said Work shall be wholly finished, at which time, if the unpaid balance of the amount to be paid under the Agreement shall exceed the expense incurred by the Contractor in finishing the said work, such excess shall be paid by the Contractor to the Subcontractor, but if such expense shall exceed such unpaid balance, then the Subcontractor shall pay the difference to the Contractor. The expense incurred by the Contractor shall include the cost of furnishing labor, materials and/or subcontracting the finishing of the Work. The Subcontractor and its sureties shall remain liable to the Contractor for any damages, expenses, legal fees, and liquidated or other damages suffered by the Contractor resulting from the Subcontractor's default without waiver of or prejudice to any other right, remedy or claim the Contractor may have in the premises. If it is determined, by litigation, arbitration or otherwise, that termination for default was unjustified for any reason, the termination shall be deemed a termination for convenience and Subcontractor's remedies shall be limited to those provided for as a termination for convenience.

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3. This Subcontract may be terminated for convenience for any reason provided for under the agreement between Contractor and Owner, or, within the sole and exclusive discretion of Contractor. In the event of a Termination for Convenience, Contractor shall only be obligated to pay Subcontractor, as otherwise provided for and in accordance with the other terms of this Subcontract, and as Subcontractor's sole and exclusive remedy: (1) that portion of the cost of the work allocable to the portion of the Project performed by Subcontractor prior to the effective date of termination; plus (2) such other costs, upon presentation of proof acceptable to Contractor, which Subcontractor reasonably may incur as a result of such termination (including demobilization, forfeited deposits, redeployment costs, applicable Project related rents, or cancellation charges); plus (3) Subcontractor's Overhead & Profit applied to the costs determined under (1) and (2); plus (4) retainage (if any) being held by Owner. Under no circumstances shall Subcontractor be entitled to recover for profit on work not performed prior to the notice of termination for convenience.

V. INDEMNIFICATION AND DEFENSE:

1. The Subcontractor shall fully and completely indemnify, defend and forever hold Contractor, Owner and Architect/Engineer harmless, along with all of their officers, directors, employees, agents and assigns, from and against any and all claims and/or liabilities of any type or kind, regardless of the legal theory, including but not limited to: (1) any and all claims for personal injury or property damage, (2) any and all claims relating to performance or the failure to perform this Agreement, (3) any and all claims arising out of Subcontractor's use of Contractor's equipment, (4) any and all claims arising out of intellectual property rights, such as copyright, trademark and patent infringement claims, and/or (5) any and all other claims which may arise out of or be related directly or indirectly to this Agreement. This indemnity obligation covers all claims of any type or kind caused by or contributed to, in whole or in part, any activity or inactivity of Subcontractor, or its sub-subcontractors, suppliers, agents, officers, directors or employees. Since Subcontractor is providing insurance coverage naming Contractor, Owner and Architect/Engineer as additional insureds, this indemnity applies to all claims regardless of any active or passive negligence on behalf of the indemnified parties. This indemnity does not cover claims arising out of the sole negligence of one of the indemnified parties, nor does it cover claims against the Architect or Engineer for professional malpractice. All other claims under this indemnity are covered, including claims arising before, during and/or after the Project was completed. This indemnity applies to all aspects of this Agreement. The indemnification obligations herein shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

2. The Subcontractor expressly agrees and understands that the Subcontractor shall provide a defense for the Owner, Architect and/or Engineer and the Contractor in any lawsuit, administrative hearing, arbitration or similar proceeding covered by this indemnification. The obligation to provide a defense shall accrue immediately upon receipt of notice of said legal proceedings from any defendant indemnified herein. If the Subcontractor fails to provide timely, competent and successful defense, the Contractor shall be entitled to any and all costs associated with said defense; including but not limited to attorney fees and ancillary costs incurred to enforce this indemnity and defense provision.

3. Furthermore, the Subcontractor will advise its insurer and surety of these indemnification, hold harmless, release and defense obligations and will obtain contractual coverage endorsement to discharge his obligations as set forth herein.

W. ENFORCEMENT:

1. The failure of the Contractor to enforce, at any time, any of the provisions of this Agreement, or to require at any time, performance by the Subcontractor of any of the provisions hereof, shall be in no way construed to be a waiver, nor in any way to affect the validity of this Agreement order or any part thereof or the right of the Contractor to thereafter enforce each and every such provision.

2. Should any portion of this Agreement be invalid or unenforceable, the remainder of the Agreement shall be valid and enforceable to the fullest extent permitted by law.

X. WARRANTY:

1. The Subcontractor warrants that the work herein contracted will be as specified and will be free from defects in design, workmanship, and materials. If within the warranty period the work fails to meet the provisions of this warranty, the Subcontractor shall promptly correct any defects, including nonconformance with the Contract Documents, by adjustment, repair, or replacement of all defective parts or materials. Subcontractor shall pay all costs associated with accessing its work to make warranty repairs and returning Subcontractor's Work, as well as all surrounding work affected during the warranty repair into the condition required by the Contract Documents. If Contractor determines that Subcontractor is not timely completing its warranty obligation, Contractor may make those repairs and backcharge Subcontractor all the costs

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associated with the repairs. If no sums remain due Subcontractor, Subcontractor shall pay Contractor all those costs immediately upon demand.

2. The Subcontractor shall provide a one (1) year warranty from the actual Project "Substantial Completion Date" on all material, equipment and workmanship unless a longer warranty period is required as specified in the specifications. With respect to any portion of the goods or services which have been repaired or replaced by Subcontractor during the warranty period, the Subcontractor shall provide a one (1) year warranty on the goods or services after the date of repair or replacement.

ARTICLE VI - MISCELLANEOUS PROVISIONS:

A. NATURE OF RELATIONSHIP:

1. For all purposes herein, the Subcontractor shall be deemed to be an independent contractor fully responsible for the means, methods and safety measures and procedures utilized fulfilling the scope of services or terms of this Agreement.

Under no circumstances shall the Subcontractor be deemed to be an employee or joint venturer with the Contractor.

B. SEVERABILITY:

1. Any provision of this Agreement may be severable from the whole without affecting the enforceability of the remainder if so deemed by a court of competent jurisdiction.

C. NO WAIVER:

1. Any failure of either party to enforce any of the provisions of this Agreement or to require compliance with any of its terms at any time during the duration of this Agreement shall in no way effect the validity of this Agreement, or any part hereof, and shall not be deemed a waiver of such party thereafter to enforce any and each such provision.

D. SUCCESSORS AND ASSIGNS:

1. This Agreement shall be binding upon the parties hereto and their successors and assigns.

E. EXHIBITS:

1. The following exhibits attached hereto are included herein by reference.

- a. Exhibit I Supplement "A"
- b. Exhibit II Contractor's Safety Program

F. CALENDAR DAYS:

1. All references in this Agreement to days, or requirements that action be taken or notice be provided within a certain number of days, are to calendar days.

ACCEPTANCE:

The said parties, for themselves, their heirs, successors, executors, and administrators and assignees, do hereby agree to the full performance and covenants contained herein.

By signing below these parties affirm that they are each authorized agents of their respective organizations, with full rights and privileges to enter into this Agreement on behalf of those respective organizations. This Agreement may be executed by facsimile signature by either party and such signature will be deemed binding for all purposes hereof without delivery of an original signature being thereafter required.

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Signature

Print Name

Title

Date

Signature

Print Name

Title

Date

Witnessed By: _____
Print Name

Signature

Witnessed By: _____
Print Name

Signature

Trade Contractor Guarantee

Project: _____
Job No.: _____
Owner: _____
A/E: _____
Date: _____

Trade Contractor: (company)
(address)
(city, state)

Work Category No.: (wc) (wcdescription)

We, the undersigned, hereby guarantee that all work accomplished and materials provided under the above-named contract or subcontract is in accordance with the terms of the contract documents as prepared by The Christman Company and the Architect/Engineer, including all addenda, change orders, and clarifications issued.

All work under the above-named contract or subcontract shall be guaranteed against defective material and workmanship for a period of **one (1) year after (appropriate date)**; correction of any deficiencies or defective work developing during this period shall be undertaken within three (3) working days following the receipt of notice by The Christman Company or Owner; and such work shall be made good by this trade contractor or sub-trade contractor at his own expense.

The following extended guarantees are a part of this contract or subcontract and shall be guaranteed as specifically described in the contract documents and as follows, but not limited to:

Trade Contractor: _____
By: _____
Signature: _____
Address: _____

Telephone: _____
Fax: _____



February 19, 2013

RE: Trade Contractor Portal

Dear Trade Contractor:

In an effort to make the entire Pay Application process more efficient for all parties involved, it will now be mandatory that all Contractors utilize The Christman Company web-based portal. Through the use of the Portal, every subcontractor will be able to:

- In “real time”, access information about current Subcontracts with The Christman Company
- Submit information including Schedule of Values and all Subcontract Compliance information
- Prepare and Submit electronically-signed documentation, including Pay Applications and Sworn Statements.

Each Contractor will need to have at least one registered user in order to utilize the Portal. Registration can be accomplished by visiting the following address:

<https://www.christmanco.com/TradeContractorPortal/registration>.

Sincerely,
The Christman Company

Jason Lovett
Accounting Manager

ATTACHMENT D- FAMILIAL DISCLOSURE STATEMENT

All bidders must complete the following disclosure form in compliance with MCL 380.1267 and attach this information to their proposal.

By the attached sworn and notarized statement, we are disclosing the following familial relationship(s) that exists between the District or any employee of the Vendor and any member of the Districts' Board or the Superintendent.

Disclose any familial relationship and complete the form below in its entirety:

The following are familial relationships as described above (provide employee name, family contact name, family contact person, and familial relationship or NONE).

	Owner/Employee Name	Related To:	Relationship:
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

Signature(s): _____

Title: _____

Name of Firm: _____

STATE OF)
) SS
COUNTY OF)

On this _____ day of _____, 2013, before me a Notary Public in and for said county, personally appeared _____, agent of the said firm

_____ and who acknowledged the same to be his free act and deed as such agent.

Notary Public

My Commission Expires _____

DATE: Tuesday, March 19, 2013

PROJECT: Ingham Intermediate School District

OWNER: Ingham Intermediate School District

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

The American Institute of Architect (AIA) "General Conditions of the Contract for Construction" - AIA Document A201/2007 is a part of this contract, and is incorporated herein by reference as fully as if here set forth for bidding purposes and will be set forth at length in the contract. The General Conditions are modified by the Supplementary General Conditions as specified herein.

All references to the "Standard form of General Conditions" are hereinafter used in these specifications shall refer to the above documents.

END OF SECTION

00800 SUPPLEMENTARY GENERAL CONDITIONS

AIA A201 -2007

Dated January 19, 2010; Revised 1/24/11

These Supplementary General Conditions modify the AIA A201 General Conditions, 2007 version, the Contract between the parties and all of the Contract Documents incorporated therein by reference as follows;

The terms and conditions of these Supplementary General Conditions shall control over all other Contract Documents in the event of any ambiguity or inconsistency.

Section 1.2.1 shall be amended as follows:

In the first line, strike "The intent of the Contract Documents is to", and substitute "The Contract Documents shall".

Section 3.3.1:

Strike "solely" from the last sentence.

Section 3.5 shall be modified as follows:

Delete "and Architect" in the first line. Revise "and will be free from defects" to "and will be free from defects caused by Contractor or any one of its subcontractors or suppliers." All Contractor's warranties provided for Owner-furnished equipment or equipment installed by Contractor as called for in the Contract Documents shall be limited to labor for the installation, and Owner's warranty rights are otherwise limited to the manufacturer's warranties. There are no warranties of merchantability or fitness for a particular purpose and the parties all agree that the Uniform Commercial Code has no application to this contract as this is a labor and services intensive contract.

Section 3.10.2:

Strike the last line in Section 3.10.2.

Section 3.12.11:

Insert "Under no circumstances shall this Section 3.12 or any other section of this Agreement be read or interpreted to create design obligations or responsibilities on behalf of Contractor."

Section 3.18.1 shall be amended as follows:

Delete "Architect, Architect's consultants, and agents" and change "employees of any of them" to "employees of the Owner." Delete "regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder."

Section 9.10.2 shall be amended as follows:

This Section 9.10.2 shall not apply to liens recorded as a result of the Owner's failure to make timely payment as required under the Contract Documents.

Section 15.2.5:

Strike the last sentence in Section 15.2.5.

Section 15.4 Arbitration:

Strike Section 15.4 Arbitration.

END OF SECTION

The Drawings which will be issued for the use of Bidders and upon which all Proposals and the Contracts will be based, consist of the following:

Drawing No.	Description	Date
A-000	TITLE SHEET, SHEET INDEX	2.18.2013
A-001	CODE COMPLIANCE FLOOR PLAN	2.18.2013
A-011	FLOOR PLAN PART 'A' DEMOLITION	2.18.2013
A-012	FLOOR PLAN PART 'B' DEMOLITION	2.18.2013
A-013	FLOOR PLAN PART 'C' DEMOLITION	2.18.2013
A-014	FLOOR PLAN PART 'D' DEMOLITION	2.18.2013
A-100	COMPOSITE FLOOR PLAN	2.18.2013
A-101	FLOOR PLAN BUILDING PART 'A'	2.18.2013
A-102	FLOOR PLAN BUILDING PART 'B'	2.18.2013
A-103	FLOOR PLAN BUILDING PART 'C'	2.18.2013
A-104	FLOOR PLAN BUILDING PART 'D'	2.18.2013
A-121	REFLECTED CEILING PLAN BUILDING PART 'A'	2.18.2013
A-122	REFLECTED CEILING PLAN BUILDING PART 'B'	2.18.2013
A-123	REFLECTED CEILING PLAN BUILDING PART 'C'	2.18.2013
A-124	REFLECTED CEILING PLAN BUILDING PART 'D'	2.18.2013
A-200	EXTERIOR ELEVATIONS AND DETAILS	2.18.2013
A-210	ROOM FINISH SCHEDULE AND NOTES	2.18.2013
A-211	DOOR SCHEDULE AND DETAILS	2.18.2013
A-300	ENLARGED FLOOR PLANS	2.18.2013
A-301	ENLARGED FLOOR PLANS	2.18.2013
A-302	ENLARGED FLOOR PLANS	2.18.2013
A-303	ENLARGED FLOOR PLANS	2.18.2013
A-305	BID ALTERNATE FLOOR PLANS AND ELEVATIONS	2.18.2013
A-310	WALL SECTIONS AND DETAILS	2.18.2013
A-311	WALL SECTIONS	2.18.2013
A-320	PLAN DETAILS	2.18.2013
A-400	INTERIOR ELEVATIONS	2.18.2013
A-401	INTERIOR ELEVATIONS	2.18.2013
A-410	CASEWORK DETAILS	2.18.2013
A-500	BID ALTERNATE 3 INTERIOR SIGNAGE	2.18.2013
A-901	FINISH PLAN BUILDING PART 'A'	2.18.2013
A-902	FINISH PLAN BUILDING PART 'B'	2.18.2013
A-903	FINISH PLAN BUILDING PART 'C'	2.18.2013

A-904	FINISH PLAN BUILDING PART 'D'	2.18.2013
FS-100	FOOD SERVICE FLOOR PLAN	2.18.2013
S-100	STRUCTURAL GENERAL NOTES	2.18.2013
S-200	COMPOSITE STRUCTURAL PLAN	2.18.2013
S-300	STRUCTURAL PLAN BLDG. PARTS 'A' AND 'B'	2.18.2013
S-301	STRUCTURAL PLAN BLDG. PART 'C'	2.18.2013
S-310	FOUNDATION DETAILS	2.18.2013
S-311	FRAMING DETAILS	2.18.2013
P-011	FLOOR PLAN BUILDING PART 'A' PLUMBING	2.18.2013
P-012	FLOOR PLAN BUILDING PART 'B' PLUMBING	2.18.2013
P-013	FLOOR PLAN BUILDING PART 'C' PLUMBING	2.18.2013
P-014	FLOOR PLAN BUILDING PART 'A' PLUMBING	2.18.2013
P-015	FLOOR PLAN BUILDING PART 'B' PLUMBING	2.18.2013
P-016	FLOOR PLAN BUILDING PART 'C' PLUMBING	2.18.2013
P100	FLOOR PLAN BUILDING PART 'A' PLUMBING PLAN	2.18.2013
P-101	FLOOR PLAN BUILDING PART 'B' PLUMBING PLAN	2.18.2013
P-102	FLOOR PLAN BUILDING PART 'C' PLUMBING PLAN	2.18.2013
P-103	FLOOR PLAN BUILDING PART 'A' PLUMBING PLAN	2.18.2013
P-104	FLOOR PLAN BUILDING PART 'B' PLUMBING PLAN	2.18.2013
P-105	FLOOR PLAN BUILDING PART 'C' PLUMBING PLAN	2.18.2013
P-300	PLUMBING SCHEDULE, DETAILS AND NOTES	2.18.2013
M-011	FLOOR PLAN BUILDING PART 'A' ENLARGED HVAC DEMOLITION	2.18.2013
M-012	FLOOR PLAN BUILDING PART 'B' ENLARGED HVAC DEMOLITION	2.18.2013
M-013	FLOOR PLAN BUILDING PART 'C' ENLARGED HVAC DEMOLITION	2.18.2013
M-014	FLOOR PLAN BUILDING PART 'D' ENLARGED HVAC DEMOLITION	2.18.2013
M-015	FLOOR PLAN BUILDING PART 'A' HVAC PIPING DEMOLITION	2.18.2013
M-016	FLOOR PLAN BUILDING PART 'B' HVAC PIPING DEMOLITION	2.18.2013
M-017	FLOOR PLAN BUILDING PART 'C' HVAC PIPING DEMOLITION	2.18.2013
M-018	FLOOR PLAN BUILDING PART 'D' HVAC PIPING DEMOLITION	2.18.2013
M-100	FLOOR PLAN BUILDING PART 'A' ENLARGED HVAC PLAN	2.18.2013
M-101	FLOOR PLAN BUILDING PART 'B' ENLARGED HVAC PLAN	2.18.2013
M-102	FLOOR PLAN BUILDING PART 'C' ENLARGED HVAC PLAN	2.18.2013
M-103	FLOOR PLAN BUILDING PART 'D' ENLARGED HVAC PLAN	2.18.2013
M-104	FLOOR PLAN BUILDING PART 'A' ENLARGED HVAC PIPING PLAN	2.18.2013
M-105	FLOOR PLAN BUILDING PART 'B' ENLARGED HVAC PIPING PLAN	2.18.2013
M-106	FLOOR PLAN BUILDING PART 'C' ENLARGED HVAC PIPING	2.18.2013



Ingham Intermediate School District
Mason, Michigan

Schedule of Drawings

	PLAN	
M-107	FLOOR PLAN BUILDING PART 'D' HVAC PIPING PLAN	2.18.2013
M-108	FLOOR PLAN BUILDING PART 'D' ENLARGED HVAC PIPING PLAN	2.18.2013
M-300	FLOOR PLAN BUILDING PART'D' EMLARGED HVAC PLAN	2.18.2013
M-301	HVAC DETAILS	2.18.2013
E-000	ELECTRICAL DETAILS, SYMBOLS AND FIXTURE SCHEDULE	2.18.2013
E-011	ELECTRICAL FLOOR PLAN PART 'A' DEMOLITION	2.18.2013
E-012	ELECTRICAL FLOOR PLAN PART 'B' DEMOLITION	2.18.2013
E-013	ELECTRICAL FLOOR PLAN PART 'C' DEMOLITION	2.18.2013
E-014	ELECTRICAL FLOOR PLAN PART 'D' DEMOLITION	2.18.2013
E-200	ELECTRICAL FLOOR PLAN PART 'A' LIGHTING	2.18.2013
E-201	ELECTRICAL FLOOR PLAN PART 'B' LIGHTING	2.18.2013
E-202	ELECTRICAL FLOOR PLAN PART 'C' LIGHTING	2.18.2013
E-203	ELECTRICAL FLOOR PLAN PART 'D' LIGHTING	2.18.2013
E-300	ELECTRICAL FLOOR PLAN PART 'A' POWER	2.18.2013
E-301	ELECTRICAL FLOOR PLAN PART 'B' POWER	2.18.2013
E-302	ELECTRICAL FLOOR PLAN PART 'C' POWER	2.18.2013
E-303	ELECTRICAL FLOOR PLAN PART 'D' POWER	2.18.2013
E-304	ENLARGED ELECTRICAL FLOOR PLANS POWER	2.18.2013
E-400	COMPOSITE FIRE ALARM FLOOR PLAN	2.18.2013

Section 00210 - Special Provisions

1. General - All Bidders are responsible to review all work categories descriptions, and report any conflicts or ambiguities which may affect the execution of their Work Categories. All Bidders are responsible to review all Bidding Documents and become familiar with them to coordinate their work accordingly. Work Category descriptions should in no way be construed as being all-inclusive. Should a conflict exist between the Work Category description and other Bidding Documents, the Work Category description shall prevail and take precedence. Bidders are required to bid the entire Work Category and may bid more than one Work Category.
2. Electronic Documentation – In an effort to promote sustainability, information shall be conveyed electronically to the greatest extent possible.
3. Pre-approved contractors – The invitation procedure requires that each primary bidder be pre-qualified by the Construction Manager. If you are unsure if you are pre-qualified please contact Jason Lovett, Accounting Manager immediately at 517-482-1488. Subcontractors and vendors responding to the primary bidders do not need to be pre-qualified. To become pre-qualified, please visit the following link - (http://www.christmanco.com/documents_forms.asp) and fill out the “Trade Contractor Information Request” form.
4. Labor Requirements – Multiple funding sources are utilized for this project; thus Davis Bacon and Prevailing Wage sheets are included within this section. It is the responsibility of the Trade Contractor to record and upload payroll reports through The Christman Company’s Trade Contractor portal for compliance. In addition, for the category of work that is applicable, the higher cost category of the two reports (Davis Bacon or Prevailing Wage) must be included in your proposal. This will be discussed and recorded at the post bid interview and will be a compliance item for payment.
5. Construction Waste Management And Disposal – Review Spec Section 017419 Construction Waste Management And Disposal.
6. General Commissioning Requirements – Review Spec Section 019113 General Commissioning Requirements.
7. Parking – Tradecontractors may utilize existing parking lots with the approval and coordination with The Christman Company. At no time, shall tradecontractors and delivery vehicle park or drive on sidewalks.
8. Project Scheduling - A preliminary project schedule has been included within the Bidding Documents for your review and use. As input from the Trade Contractors is provided and as progress begins, this schedule will be periodically updated and re-issued. Each Trade Contractor is required to become familiar with the preliminary schedule and sequence their work accordingly. Activity durations shall be maintained regardless of actual start dates.
9. Post Bid interviews – The Christman Company will hold post bid interviews for the low qualified bidders immediately after bids are received. It is essential to the interview process that the primary and secondary Trade Contractors are included in the meeting, as well as the intended project foreman, project manager and estimator. The purpose of the interview will be to discuss the bids but will also focus on schedule, submittals, safety, site utilization and unique project requirements. The post bid interviews will be conducted at The Christman Company, 208 North Capitol Avenue, Lansing, Michigan 48933, following the schedule below:

WORK CATAGORY	DATE	TIME
WC20 Low Bidder	3.20.13	10:00am
WC27 Low Bidder	3.20.13	1:00pm

WC28 Low Bidder	3.20.13	3:00pm
WC 29 Low Bidder	3.21.13	8:00am
WC18 Low Bidder	3.21.13	9:30am
WC21 Low Bidder	3.21.13	11:00am
WC22 Low Bidder	3.21.13	1:00pm
WC24 Low Bidder	3.21.13	2:30pm
WC20 Second Bidder	3.21.13	4:00pm
WC27 Second Bidder	3.22.13	8:00am
WC28 Second Bidder	3.22.13	9:30am
WC 29 Second Bidder	3.22.13	11:00am
WC18 Second Bidder	3.22.13	1:00pm
WC21 Second Bidder	3.25.13	10:00am
WC22 Second Bidder	3.25.13	11:30am
WC24 Second Bidder	3.25.13	1:00pm

Tradecontractors shall reserve the applicable date and time for this process.

10. Shop Drawings & Submittals – The Trade Contractor shall review, approve in writing, and submit through the Construction Manager all submittals within the time period agreed to in the post bid interview process as to cause no delay in the work or in the work of any separate Trade Contractor. Shop drawings, product data and samples shall be properly identified as specified. At the time of submission, each Trade Contractor shall inform the Construction Manager in writing of any deviation in the shop drawings, product data or samples from the requirements of the Bidding Documents. In an effort to efficiently work through the submittal approval process, in person review meetings may be scheduled with The Christman Company, Hobbs + Black and the submitting tradecontractor.

For Re-Submittals – Each Trade Contractor shall make any corrections required by the Construction Manager or Architect and shall resubmit the shop drawings, product data or new samples until approved. Each Trade Contractor shall direct specific attention, in writing or on resubmitted shop drawings, product data or samples, to revisions other than those requested by the Construction Manager or Architect on previous submittals. Refer to Section 01300 Submittals for definitions of Action Markings.)

11. Schedule of Values (SOV) – Per Section 01370 Schedule of Values, submit for approval a typed SOV. Once approved, adhere to the Application for Payment process.
12. Application for payment – Submit an electronic copy of the payment application on AIA Form G702 - application and certificate for payment utilizing the tradecontractor payment portal from The Christman Company. Utilize approved SOV items for application for payment. Payment period: Pencil copies are due the 20th of each month and revised signed payment applications are due the 25th of each month. Each request for payment shall be provided with a fully executed sworn statement along with its relative unconditional waivers. All subcontractors and suppliers are to be listed on the sworn statement.
13. Change Management – Refer to Sections 01150 and 01019 for definitions, but the following change management documents will be utilized on this project:

14. Existing Services –The existing utilities will be available on a partial basis and will remain in operation during construction as much as possible. Existing HVAC units will not be in use during the construction period. Care must be taken when working around the site and in the building. The Owner will pay for all power consumed for the temporary electrical service, all natural gas consumed for temporary heat, and all water consumed for temporary potable water.

Under conditions where tie-ins to existing services/utilities are required, each Trade Contractor will be required to notify Construction Manager five (5) working days in advance. Pre-Task planning and shut-down notifications will be required to assure minimum interruptions to Owner operations, including performing required tie-ins after normal working hours. Trade Contractors are responsible to cover premium time costs to complete required tie-ins.)
15. Hoisting – All hoisting is the responsibility of each tradecontractor. All on-site hoisting (including deliveries) must be coordinated in advance with The Christman Company
16. Site Boundaries – Do to the nature of the project, exterior work is limited. Identification of site boundaries will established by The Christman Company
17. Existing Facilities – Tradecontractors are not allowed to utilize toilets within the building. Portable toilets will be provided through The Christman Company
18. Material Deliveries and Staging – These items must be coordinate with The Christman Company prior to the work occurring.
19. Communication and Phones – Each tradecontractor must provide a list and mobile contact number for all on-site workers. In addition, emergency contacts for 24/7 emergency access must also be provided.
20. Independent Testing and Inspections – Adherence for testing as outlined in the project specification is the responsibility of the tradecontractor completing the work. Copies of the test results shall be provided to The Christman Company in a timely manner.
21. Layout – Is the responsibility of each individual tradecontractor.
22. Jobsite Safety Orientation – All Trade Contractors of any tier and visitors entering this jobsite will be required to check-in with the Construction Manager upon arrival at the project site. Check-in procedures will include the review and acknowledgement of the Construction Managers Project Specific Safety Orientation and Policies. All construction personnel will be required to wear The Christman Company issued safety sticker when working on or visiting this jobsite).
 - a. Safety (see contract form section for project safety program) - It is a fundamental value of the Construction Manager that safety is always a primary consideration. There is no phase of the project that has greater importance than accident prevention and the preservation of human resources. The Construction Manager’s safety program is stringent and rigorous. The following represents a few important pre-construction requirements that apply to this project. Before any awarded Trade Contractor starts work on-site, the following requirements shall be satisfied:
 - i. Provide a copy of Trade Contractor’s site specific safety program.
 - ii. Attend Construction Manager’s project specific safety orientation program, which includes review of our safety video, review of project specific written safety program, review of Project Specific Infection Control Policy, sign-in and badging requirements.
 - iii. No tobacco products, including but not limited to cigarettes, cigars, chewing tobacco, etc. are permitted on premises.
 - iv. Provide a copy of Material Safety Data Sheets (MSDS) for all proposed materials.

- v. Hardhats and safety glasses are to be worn at all times. Additional personal protection equipment will be worn appropriately based on the work performed.
 - vi. Designate a Safety Representative(s) who will be working on-site – Provide telephone numbers and emergency telephone numbers.
 - vii. Hoisting over occupied areas will not be permitted unless areas are vacated or a controlled access program initiated.
 - viii. Hot work permits shall be obtained as required, including fire watch requirements.
 - ix. Shut down notifications shall be obtained as required with a minimum of five (5) working days advance notice.
 - x. An understanding of our safety program and specifically our policy that in the event of an injury or near miss, all parties involved will be required to take a drug screening test immediately. Failure to perform the required test will result in removal from the site.
 - xi. Fall protection shall be worn and used, 100% of the time, by all persons when there is exposure to a fall greater than six (6) feet unless other provisions such as guardrails, safety nets, or fall restraints have been provided. This includes, but is not limited to, steel erection (including connecting, bolting-up, decking, welding or any other steel erection activity), pre-cast erection, roofing activities and masonry work including overhand laying operations.
 - xii. Hot Work Permits - Hot work permits will be required during all cutting, grinding, welding and torch cutting activities, including fire watch requirements. These permits are to be filled out in the jobsite trailer with a copy of it to be placed at the place of hot work.
 - xiii. FTP Site – An FTP site is set up for bidders to use. Plans, addendums, pre-bid RFI's, etc. will be filed here for everyone's review. The FTP address is <ftp://blueprint.christmanco.com>, the username is "Ingham" and the password is "CACC".
23. Progress Cleanup – Each tradecontractor is responsible the daily clean-up of identifiable debris related to their work. In addition, each trade contractor shall provide 2 workers for two hours each Friday afternoon to clean designated area of undefinable debris assigned by The Christman Company representative.
24. Warranties –The contractor shall guarantee all materials and work for a period of one year from Substantial Completion. Before final payment, Contactor must provide a letter of guarantee confirming the effective date and duration of the guarantee.
25. Work Hours - Common jobsite working hours shall be 7:00 am to 3:30 pm, Monday through Friday. Any overtime requires advance approval by Construction Manager.
26. Alternates – A total of five alternates are included in the bidding documents and are summarized as follows:
Alternate #1 Toilet Room 202F
Work Categories WC 20 & WC 22
Description of Alternate - Provide all labor and materials to remove and reinstall the existing lockers, remove the existing wall and floor tile and replace with new tile, repaint the hollow metal door frame.
Base Bid items in this area - Base bid to include existing ceiling and lighting removal and replacement, new toilet partitions, grab-bars. (See Sheet A-305)

Alternate #2 Interior Signage

Work Categories WC 20, WC21 & WC24

Description of Alternate - Provide all labor and materials to remove all existing interior signs, patch and repair walls to match and install new interior signage. (See Sheet A-500)

Alternate #3 Existing Terrazzo Flooring and Base Refinishing

Work Category WC22

Description of Alternate - Provide all labor and materials to refinish all existing terrazzo flooring and base in the entire facility (See Sheet A-100).

Alternate #4 Plastic Laminate Casework

Work Category WC20

Description of Alternate - Provide all labor and materials to provide and install alternate casework.

Alternate #5 Ceiling Painting

Work Category WC24

Description of Alternate- Provide all labor and materials to paint the existing plaster tray ceiling above Rooms 110 and 111 (See Sheet A-121).

27. Sealant Schedule - Sealants are to be installed as listed in the schedule below. If sealants are required by the specification for a specific system that is are not listed, then the Trade Contractor installing the product shall be responsible for the associated caulking.

Sealant Schedule		
<u>Item to be sealed</u>	<u>Responsible WC</u>	<u>Comments</u>
Door Frames to wall	24	
Plumbing fixtures	27	
Glazing Systems	18	
Masonry Systems	20	
Countertops	20 & 29	WC29 is only responsible for Stainless steel counters
Roofing Systems	14	
Penetration Firestopping	Various	Contractor making penetration
Top of base	22	

End of Special Provisions Section 00210

01010 SUMMARY OF WORK

01011 RELATED DOCUMENTS

- 1.1 Drawings and general provisions of the Contract including General and Supplementary Conditions and Division I Specification Sections, apply to work specified in this section.
- 1.2 Information given in the Division I General Requirements shall supplement information given in the General and Supplementary Conditions. The most stringent provision in the General

Conditions, General Requirements, Contract Drawings and Specifications shall govern the execution of any work or requirement.

01012 CONSTRUCTION MANAGER

- I.1 Ingham ISD, Purchasing is the Construction Manager. Wherever the term General Contractor or Contractor (in the context of the General Contractor) is used, it shall be given the same meaning as Construction Manager.
- I.2 The Trade Contractor and his sub-Trade Contractors shall agree to and accept the same responsibility and follow the same terms of the Conditions of the Contract as the Construction Manager for the work for which he is under contract.

01013 PROJECT

- I.1 The Work as defined in the General Conditions and described in the Contract Document.

01014 RELATED WORK NOT-IN-CONTRACT (NIC)

- I.1 Reference Section 00210 for any work that will be performed by the Owner or accomplished under separate contract.

01015 REPLACEMENT MATERIAL (For Owner's future use)

- I.1 If any specific amounts are called for in the individual Sections, provide the specified amounts. If none are specified and a surplus is left, request instructions from the Construction Manager before discarding the surplus.

01016 LABOR, MATERIALS, TAXES & WORKMANSHIP

I. LABOR AND MATERIALS

- I.1 Unless otherwise specified in these Contract Documents, all materials and workmanship shall be new and of the best grade of their respective kind for the purpose.
- I.2 Unless otherwise specifically provided in the Contract Documents, the Trade Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for the proper execution and completion of the Work.
- I.3 The Trade Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him.

2. TAXES

- 2.1 Unless tax exempt status is specifically noted, it is understood that the bid prices stated shall include all applicable Federal, State or other Governmental division taxes and assessments. Also, all contributions for unemployment compensation, health and welfare, old age benefits or other purposes now or hereafter effective during the term of the contract, and the Owner and

Construction Manager shall not be liable for any additional charges therefore.

01017 CRITICAL PHASING & STAGES OF CONSTRUCTION

1. INTRODUCTION

- 1.1 Critical phasing and critical stages of construction have been established herein for the project. It is extremely important that the "Critical Phasing & Stages of Construction" requirements be understood and complied with.
- 1.2 The Construction Manager shall coordinate detailed critical phasing and sequencing and scheduling with the Owner's representative.
- 1.3 The Construction Manager shall provide overall scheduling and coordination for the entire project. All Trade Contractors shall acknowledge the Construction Manager's right to establish and set up, or subsequently modify, the sequencing and scheduling of all Work on this project for the earliest completion and/or benefit to the Owner.
- 1.4 All Trade Contractors shall expedite the ordering and delivering of materials and equipment, etc. to meet these critical phasing and staging requirements and to make every effort possible to minimize disruption of normal building usage.

2. BID SCHEDULES

- 2.1 The preliminary construction schedule narrative included in the Contract Documents represents the general order and time frames for work to be followed by the Construction Manager in coordinating the project. Trade Contractors are to assume that their work will be coordinated in a manner consistent with industry practice, and the efficient coordination of all other trades. Trade Contractors recognize and accept their work may be sequenced and paced by other trades.
- 2.2 Please note that although the schedule defines the planned order of construction, Bidders should not assume that any assurance is given or implied as to the calendar dates associated with completion of the work of a particular contract.
- 2.3 All Trade Contractors and Trade Subcontractors recognize and shall accept modifications to the schedule which are reasonable, in the opinion of the Construction Manager, for the general interest of the project as a result of allowable time extensions (formally or informally approved) in any contract, and such modifications are inherent to the construction process and shall not qualify as a basis for extra compensation from the Construction Manager or Owner.
- 2.4 The Trade Contractor, in submitting a proposal for the work of a particular work category, agrees to commit the necessary resources to complete the work activities of that work category, within a time span not greater than the planned duration. Work included within a work category, but not specifically defined by a particular work activity, is to be accomplished in a reasonable manner in conjunction with other work of the work category, and in such a way as to avoid complication of or to delay the work of other Trade Contractors.

3. PROJECT SEQUENCING

3.1 GENERAL SEQUENCING

- 3.1.1 The overall project sequencing is indicated within the Preliminary Construction Schedule. Refer to Section 00200 and Section 01310.

3.2 RESTRICTIVE SEQUENCING & SCHEDULING

- 3.2.1 More restrictive sequencing to coordinate the Owner's on-going operations and/or for the coordination of the various trades shall be identified in Section 00210 SPECIAL PROVISIONS or as otherwise directed by the Construction Manager; All Trade Contractors agree to cooperate and alter their operations to maintain these more specified restrictions and sequences of the work.

3.3 SPECIFIC PROJECT REQUIREMENTS

- 3.3.1. Refer to the work category description and Section 00210 for specific information on scheduling requirements.

4. MUTUAL COOPERATION

- 4.1. Mutual cooperation between the Owner, the Architect, the Construction Manager, and the Trade Contractors to coordinate these construction and building operation requirements is anticipated and expected.

01018 USE OF SITE

- 1.1 Trade Contractor shall limit his use of the premises for his work and for storage to allow for (i) work by other Trade Contractors; (ii) Owner occupancy; and (iii) public use.
- 1.2 Limitations on site usage as well as specified requirements that impact site utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements, the Construction Manager will administer allocation of available space equitably among entities needing both access and space so as to produce the best overall efficiency in performance as the total work of the project. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.
- 1.3 Trade Contractor shall assume full responsibility for the protection and safekeeping of products under his contract, stored on the site.
- 1.4 Trade Contractor shall provide the necessary means to protect existing elements and contents of the building while placing work. This includes but is not limited to tarps and dust control measures.
- 1.5 Move any stored products, under Trade Contractor's control, which interfere with operations of the Owner or separate Contractor.
- 1.6 Obtain and pay for the use of additional storage or work areas needed for operations.
- 1.7 Nonsmoking Campus: Smoking is not permitted anywhere on campus. This includes Trade contractor vehicle on site.

01019 OWNER'S RIGHT TO OCCUPY

- 1.1 The Owner, at his election, may from time to time occupy any parts of the project as the work in connection therewith is completed to such a degree as will, in the opinion of the Owner, permit of their use for the purposes for which they are intended. The Owner will, prior to any such partial occupancy, give notice to the Construction Manager thereof and such occupancy

shall be based upon the following:

- a. Such occupancy shall not constitute an acceptance of work not performed in accordance with the Contract Documents or relieve Trade Contractors of liability to perform any work required by their Contract but not completed at the time of occupancy.
- b. Trade Contractors shall be relieved of all maintenance costs on the units or parts occupied under this agreement.
- c. Owner shall assume the risk of loss with respect to any unit or part occupied under the terms of this agreement.
- d. The Trade Contractor shall not be required to furnish heat, light and water or other such services used in the units or parts occupied, without proper re-numeration therefore.

END OF SECTION

01019 CONTRACT CONSIDERATIONS

SECTION INCLUDES:

- I.1 Inspection and Testing Allowance
- I.2 Schedule of Values
- I.3 Application for Payment
- I.4 Change Procedures

I.1 INSPECTION & TESTING ALLOWANCES

If inspection and testing allowances have been assigned to the Trade Contractors, the following shall apply:

I.1.1 Costs included in allowances

- a. Cost of engaging an inspection or testing firm, execution of inspection or tests, reporting results.

I.1.2 Costs not included in the allowance:

- a. Incidental labor and facilities required to assist inspection or testing firm.
- b. Costs of testing laboratory services required by Contractor separate from Contract Document requirements.
- c. Costs of retesting upon failure of previous tests as determined by Architect-Engineer.

I.1.3 Payment Procedures:

- a. Submit one copy of the inspection or testing firm's invoice with next application for payment.
- b. Pay invoice on approval by Architect-Engineer.

I.1.4 Funds will be drawn from inspection and testing allowances only by Change Order.

I.2 SCHEDULE OF VALUES

I.2.1 Submit typed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet. Contractor's standard form or electronic media printout may be considered. Application for Payments will not be processed until Schedule of Values is approved. Without prior approval of the Construction Manager, **no single line item can exceed \$100,000. Unless indicated otherwise, allowances and change orders must be listed as separate line items.**

I.2.2 Submit Schedule of Values in duplicate within ten (10) calendar days after date established in Notice to Proceed. Prior to the first Application for Payment, the Trade Contractor shall submit for approval, a typed, detailed Schedule of Values, on AIA Form G703 or equivalent.

The schedule of values must be itemized as follows:

I.2.3 Format: Unless instructed otherwise, utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the major specification Section. Identify bonds, insurance, and permits separately.

I.2.4 Include in each line item, the amount of Allowances specified in this Section. For unit

cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.

I.2.5 Include within each line item, a directly proportional amount of Contractor's overhead and profit.

I.2.6 Revise schedule to list approved Change Orders, with each Application For Payment.

I.3 APPLICATIONS FOR PAYMENT

I.3.1 Unless instructed otherwise, upload through The Christman Company Trade Contractor Portal payment applications on AIA Form G702 - Application and Certificate for Payment

I.3.2 Content and Format: Utilize Schedule of Values for listing items in Application for Payment.

I.3.3 Payment Period: First of month to first of month unless agreed to otherwise.

I.3.4 Waiver of liens and Sworn Statements shall accompany all Payment Requests unless agreed to otherwise.

I.4 CHANGE PROCEDURES

I.4.1 The Architect-Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by AIA A201, 1987 Edition, Paragraph 7.4.

I.4.2 The Architect-Engineer may issue a change management document which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within five (5) calendar days.

I.4.3 The Contractor may propose a change by submitting request for change to the Architect-Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Sections 01600 and 01600A.

I.4.4 Stipulated Sum/Price Change Order: Based on change management document and Contractor's fixed price quotation; or, Contractor's request for a Change Order as approved by Architect-Engineer.

I.4.5 Unit Price Change Order: For pre-determined unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work, which are not pre-determined, execute Work under a change management document. Changes in Contract sum/Price or Contract Time will be computed as specified for Time and Material Change Order.

I.4.6 Change Management Document: Architect-Engineer may issue a change authorization signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.

- I.4.7 Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Architect-Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- a. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
 - b. Execution of Change Orders: Architect-Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
 - c. Overhead and Profit: Overhead and Profit shall include the following:
 - d. Supervision, Superintendents, Commercial General Liability and Umbrella Insurances, Wage of Time Keepers, Watchmen and Clerks, Small tools with material value of less than \$1,500.00, Incidentals, General Office Expense, and all other expenses not included in Labor Rates. The percentage fee for Overhead and Profit on the Contractor's own work shall be 15% of net cost. The percentage fee for Overhead and Profit on Subcontractor's work shall be 5%.

END OF SECTION

01020 ALLOWANCES

I. GENERAL

- I.1 Allowances will be established as directed in the Work Category Descriptions and are required to be included within the Trade Contractor's base bid. The amount included is an actual cost and does not include overhead and profit. Overhead and profit shall be included in the Trade Contractor's base bid, not in the allowance. Charges against the allowances will be at the Trade Contractor's net rate without overhead and profit as it is already included in the Contractor's base bid. These allowances are set up to be used only when authorized by the Construction Manager. Labor charged against the allowances will be in accordance with mutually accepted labor rates listed in each Trade Contractor's respective contract. Work expended by use of the allowances may be billed for each month in the Trade Contractor's monthly billing provided proper documentation and allowance authorizations are provided. In the event a balance remains within a specific allowance at the end of the project, a change order will be issued deducting the balance remaining in the allowance from the Trade Contractor's contract. All savings as a result of the Trade Contractor's non-use of these allowances will be the Owner's.

END OF SECTION

01030 SPECIAL PROJECT PROCEDURES

01031 ALTERATIONS

I.1 ASBESTOS ADVISORY

I.1.1 All asbestos contaminated materials shall be removed by the Owner.

I.2 NON-ABATEMENT TRADE CONTRACTOR RESPONSIBILITIES

I.2.1 Some areas of this project may contain asbestos in some locations. The Owner will attempt to remove or encapsulate all known asbestos prior to the start of renovations. This section contains the asbestos related requirements of all Trade Contractors working on this project.

I.3 GENERAL REQUIREMENTS

I.3.1 All Federal, State and local laws, rules, regulations and ordinances for asbestos related work shall be adhered to, including but not limited to, OSHA, MIOSHA, EPA and DEQ.

I.3.2 All Non-Abatement Trade Contractors working around asbestos containing materials are to have a minimum of 2-hours of awareness training on the health and safety aspects of asbestos.

I.3.3 All Non-Abatement Trade Contractors involved with the disturbance of Category I non-friable asbestos (roof felts, floor tile, transit chimney, etc.) are required to have all workers receive a minimum of 8-hours "hands-on" OSHA approved training prior to beginning work.

I.3.4 In addition a Non-Abatement Trade Contractor involved with the removal of Category I non-friable asbestos will have at least one on-site worker, employed by the Non-Abatement Trade Contractor, who has successfully completed an asbestos "Supervisor" course and received accreditation. The course shall meet the criteria of EPA's Model Accreditation Plan (40CFR Part 763) for Supervisor or its equivalent.

I.3.5 Documentation of said training must be posted at the job site during the removal of asbestos containing material(s), disposal, and/or handling.

I.3.6 Monitoring will be conducted pursuant to OSHA regulation 29 CFR 1926.1101.

I.3.7 **THE NON-ABATEMENT TRADE CONTRACTOR IS TO STOP WORK AND NOTIFY THE CONSTRUCTION MANAGER ANY TIME SUSPECTED ASBESTOS CONTAINING MATERIALS ARE ENCOUNTERED BY ANY OF HIS/HER WORKERS.**

I.3.8 All Non-Abatement Trade Contractors that will be removing Category I non-friable asbestos containing materials are to contact the Owner who will arrange and pay for the Environmental Consultant to provide air monitoring services.

I.4 EXCLUSIONARY STATEMENT FOR BUILDING CONSTRUCTION/RENOVATION MATERIALS

I.4.1 All building materials/products used for renovations or replacement purposes are to be asbestos and lead-free. Asbestos and lead-free is to be defined as materials that contain 0% asbestos or lead. All Contractors are to be prepared to submit data, for a building

material/product that he/she is proposing or required to use, to verify the absence of asbestos and lead.

- I.4.2 The Non-Abatement Trade Contractors are to complete and sign the form titled "Exclusionary Statement for Building Construction/Renovation Materials".

I.5 NOTIFICATION

- I.5.1 All Non-Abatement Trade Contractors that are required to remove Category I non-friable asbestos are to fill out and submit to the Michigan Department of Natural Resources, the "**NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH**", in accordance with the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Department of Labor and Economic Growth (DLEG).

END OF SECTION

01040 COORDINATION**01041 GENERAL**

- I.1 The Construction Manager is ultimately responsible for coordination to complete all work shown on the drawings and specified herein independent of the location of the work on drawings and within the specifications. The arrangement of work within the specifications into Divisions and Sections shall be considered as given for convenience of reference only and shall not be held to conform to jurisdictional rules which may prevail in any particular trade. It shall be the responsibility of the Construction Manager to so arrange or group items of work under a particular trade to conform with the prevailing customs of that trade and best interest of the Owner.

01042 GENERAL INSTALLATION PROVISIONS

- I.1 **PRE-INSTALLATION CONFERENCES:** The Construction Manager shall hold pre-installation meeting at the project site well before installation of each unit of work, which requires coordination with other work. Installer and representatives of the manufacturers and fabricators who are involved in or affected by that unit of work, and with its coordination or interpretation with other work that has preceded or will follow shall attend this meeting. The Construction Manager will advise the Architect/Engineer of scheduled meeting dates.
- a. The Construction Manager shall record significant discussions of each conference, and record agreements and disagreements, along with the final plan of action. The Construction Manager shall then distribute the record of meeting promptly to everyone concerned, including the Owner and Architect/Engineer.
 - b. Do not proceed with the work if the pre-installation conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the work and reconvene pre-installation conference at the earliest possible date.
- I.2 **Installer's Inspection of Conditions:** Require the installer of each major unit of work to inspect the substrate to receive work and conditions under which the work is to be performed. The installer shall report all unsatisfactory conditions in writing to the Construction Manager. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- I.3 Coordinate enclosure of the work with required inspections and tests so as to minimize the necessity of uncovering work for that purpose.
- I.4 **Mounting Heights:** Where mounting heights are not indicated. Refer to the Construction Manager for decision. Products installed at a location not indicated or approved by the Architect or Construction Manager shall be relocated at the Trade Contractor's expense.

01043 COORDINATION OF PERMANENT UTILITY CONNECTIONS

- I.1 New utility connections shall be coordinated with local utilities and the Project Superintendent.

01044 MECHANICAL & ELECTRICAL COORDINATION

- I.1 All Trade Contractors shall make arrangements with the Construction Manager before connecting to existing facilities. If interruption of service is required, it shall be done at the convenience of the Owner as scheduled by the Construction Manager / General Contractor.

END OF SECTION

01045 CUTTING AND PATCHING**I. GENERAL****I.1 RELATED DOCUMENTS**

Drawing and general provisions of contract, including General and Supplementary Conditions and other Division I Specification sections apply to work of this Section.

I.2 DESCRIPTION OF REQUIREMENTS

I.2.1 Definition: "Cutting and patching" includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.

- a. "Cutting and patching" is performed for coordination of the work, to uncover work for access or inspection, to obtain samples for testing, to permit alterations to be performed or for other similar purposes.

I.3 RELATED WORK SPECIFIED ELSEWHERE

I.3.1 Refer to mechanical and electrical specifications sections for additional requirements and limitations on cutting and patching of mechanical and electrical work.

I.4 QUALITY ASSURANCE

I.4.1 Requirements for Structural Work: Do not cut and patch structural work in a manner that would result in a reduction of load-carrying capacity or of load-deflection ratio.

- a. Before cutting and patching the following categories of work, obtain the Construction Manager's approval to proceed:
 - Structural Steel - Miscellaneous structural metals, including lintels, equipment supports, stair systems and similar categories of work.
 - Structural Concrete - Foundation construction, Retaining walls, Structural decking, Exterior wall construction, Piping, ductwork, vessels and equipment. Reinforcing steel shall not be heated to bend or reshape a bar.
- b. Visual Requirements: Do not cut and patch work exposed on the building's exterior or in its occupied spaces, in a manner that would, in the Architect/Engineer's opinion, result in lessening the building's aesthetic qualities. Do not cut and patch work in a manner that would result in substantial visual evidence of cut and patch work. Remove and replace work judged by the Architect/ Engineer to be cut and patched in a visually unsatisfactory manner.

2. PRODUCTS**2.1 MATERIALS**

2.1.1 General: Use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal-or-better performance characteristics.

3. EXECUTION**3.1 INSPECTION**

- 3.1.1 Inspect existing conditions of the project, including elements subject to damage or to movement during cutting and patching.
- 3.1.2 After uncovering work, inspect the conditions affecting the installation of products or performance of the work.
- 3.1.3 Report unsatisfactory or questionable conditions to the Construction Manager in writing; do not proceed with the work until the Construction Manager has provided further instructions.

3.2 PREPARATION

- 3.2.1 Provide adequate temporary support as necessary to assure the structural value or integrity of the affected portion of the work.
- 3.2.2 Provide devices and methods to protect other portions of the project from damage.
- 3.2.3 Provide protection from the elements for that portion of the project, which may be exposed by cutting and patching work, and maintain excavations free from water.

3.3 PERFORMANCE

- 3.3.1 Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation or repairs. Cutting and patching shall be performed by individuals certified, licensed, or otherwise qualified as experienced and with sufficient training to perform the required task.
- 3.3.2 Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- 3.3.3 Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- 3.3.4 Restore work which has been cut or removed; install new products to provide complete work in accord with requirements of Contract Documents.
- 3.3.5 Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- 3.3.6 Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.
- 3.3.7 For continuous surfaces refinish to nearest intersection. For an assembly, refinish the entire unit.

3.4 CLEANING

- 3.4.1 Thoroughly clean areas and spaces where work is performed or used as access to work. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

4. CUTTING & PATCHING FOR MECHANICAL WORK

- 4.1 The Mechanical Contractor shall be responsible for all cutting, core drilling, and patching for their work. Cutting and patching shall be performed by individuals certified, licensed, or otherwise qualified as experienced and with sufficient training to perform the required task.
- 4.2 The Mechanical Contractor shall be responsible for the accurate location of all openings necessary for the installation of the mechanical work. Any additional openings required to move his work due to an error in the initial layout shall be made at the expense of the Mechanical Contractor.

5. CUTTING & PATCHING FOR ELECTRICAL WORK

- 5.1 The Electrical Contractor shall be responsible for all cutting, core drilling, and patching for their work. Cutting and patching shall be performed by individuals certified, licensed, or otherwise qualified as experienced and with sufficient training to perform the required task.
- 5.2 The Electrical Contractor shall be responsible for the accurate location of all openings necessary for the installation of the electrical work. Any additional openings required to move his work due to an error in the initial layout shall be made at the expense of the Electrical Contractor.

END OF SECTION

01049 MECHANICAL & ELECTRICAL COORDINATION

SECTION INCLUDES:

- I.1 Mechanical and Electrical Coordinator
- I.2 Submittals
- I.3 Coordination Required
- I.4 Coordination Documents
- I.5 Coordination of Submittals
- I.6 Coordination of Substitutions and Modifications
- I.7 Observation of Work
- I.8 Documentation
- I.9 Equipment Start-Up
- I.10 Inspection and Acceptance of Equipment
 - I.1 MECHANICAL & ELECTRICAL WORK COORDINATOR
 - I.2.1 Employ and pay for services of a person, technically qualified and experienced in field coordination for the type of mechanical and electrical work required for this Project, for the duration of the work.
 - I.2.2 Qualified person may be already part of staff, verify in writing, person's qualifications.
 - I.3 SUBMITTALS
 - I.3.1 Submit name, address and telephone number of coordinator and name of principle officer to Architect-Engineer for review of his/her qualifications.
 - I.3.2 Submit coordination drawings and schedule prior to submitting Shop Drawings, Product Data and Samples.
 - I.4 COORDINATION REQUIRED
 - I.4.1 Coordinate work of all applicable divisions.
 - I.4.2 Coordinate progress schedules, including dates for submittals and for delivery of products.
 - I.4.3 Conduct conferences among subcontractors and others concerned with the Work to establish and maintain coordination and schedules, and to resolve coordination materials in dispute.
 - I.4.4 Participate in progress meetings. Report on progress of Work to be adjusted under coordination requirements, and any required changes in schedules. Transmit minutes of meetings and reports to concerned parties.
 - I.5 COORDINATION DOCUMENTS
 - I.5.1 Prepare coordination drawings to organize installation of Products for efficient use of available space, for proper sequence of installation, and to identify potential conflicts.

- 1.5.2 Prepare a master schedule to identify responsibilities under each section of Divisions I through I6 of the Specifications for activities which directly relate to this work, including submittals and temporary utilities. Identify electrical power characteristics and control wiring required for each item of equipment.
 - 1.5.3 Maintain documents for the duration of the Work, recording changes due to site instructions, modifications or adjustments.
 - 1.5.4 After Architect-Engineer review or original and revised documents, reproduce and distribute copies to concerned parties.
- 1.6 COORDINATION OF SUBMITTALS**
- 1.6.1 Review Shop Drawings, Product Data and Samples for compliance with Contract Documents and for coordination among work of all sections of the Project Manual. Transmit to Contractor for review, and then transmit to Architect-Engineer.
 - 1.6.2 Check field dimensions and clearances and relationship to available space and anchors.
 - 1.6.3 Check compatibility with equipment and Work of other sections, electrical characteristics, and operational control requirements.
 - 1.6.4 Check motor voltages and control characteristics.
 - 1.6.5 Coordinate controls, interlocks, wiring of pneumatic switches and relays.
 - 1.6.6 Coordinate wiring and control diagrams.
 - 1.6.7 Review the effect of any changes on work of other sections.
 - 1.6.8 Verify and coordinate maintenance of record documents.
- 1.7 COORDINATION OF SUBSTITUTIONS & MODIFICATIONS**
- 1.7.1 Review proposals and requests from subcontractors.
 - 1.7.2 Verify compliance with Contract Documents and for compatibility with Work and Products of other sections.
 - 1.7.3 Submit to Contractor with recommendation for action.
 - 1.7.4 Coordinate with Sections 01600 and 1600a.
- 1.8 OBSERVATION OF WORK**
- 1.8.1 Observe Work for compliance with Contract Documents.
 - 1.8.2 Maintain a list of observed deficiencies and defects; promptly submit to contractor.
- 1.9 DOCUMENTATION**
- 1.9.1 Observe and maintain a record of tests. Record:
 - a. Specification section number, product and name of subcontractor.
 - b. Name of testing agency and name of inspector.
 - c. Name of manufacturer's representative present.
 - d. Date, time and duration of tests.
 - e. Retesting required.
 - f. Type of test and results.

- I.9.2 Assemble background documentation for dispute and claim settlement by Architect-Engineer.
- I.9.3 Submit copies of documentation to Architect/Engineer upon request.
- I.10 EQUIPMENT START-UP
 - I.10.1 Verify utilities, connections and controls are complete and equipment is in operable condition as required by Sections 01039, 01650, and 01700.
 - I.10.2 Observe start-up and adjustments; record time and date of start-up and results.
 - I.10.3 Observe equipment demonstrations to Owner; record times and additional information required for Operation and Maintenance Manuals.
 - I.10.4 Submit an approved Balance Report of HVAC System.
- I.11 INSPECTION & ACCEPTANCE OF EQUIPMENT
 - I.11.1 Prior to inspection, verify that equipment is tested and operational and clean.
 - I.11.2 Assist Architect-Engineer with inspection. Prepare list of items to be completed and corrected.
- 2.1 PRODUCTS
- 3.1 EXECUTION

END OF SECTION

01050 FIELD ENGINEERING**01051 LAYOUT**

- I.1 Under the supervision and with the assistance of the Construction Manager, each Trade Contractor will be responsible for the layout of his particular portion of the work. Checking of layout and any assistance provided by the Construction Manager shall in no way be construed to relieve the Trade Contractors of their responsibilities for layout dimensions, tolerances, and accuracy of their work as set forth in the Contract Documents.
- I.2 Each Trade Contractor shall carefully protect monuments, stakes, and benchmarks. If destroyed or disturbed by the Trade Contractor or his employees, the cost of replacing them shall be charged against the Trade Contractor and shall be deducted from the Trade Contractor's contract amount.
- I.3 Except as otherwise noted, each Trade Contractor shall obtain his own field measurements and establish lines, grades, levels, and measurements shown on the drawings, and reconcile all measurements and conditions shown on the drawings with existing conditions at site, from the site survey provided and building corner indications and ground floor elevation designated by the Construction Manager.
- I.4 Before custom fabricating any materials, the Trade Contractor shall verify all dimensions of any existing and new work, and shall be responsible for their accuracy. Any differences found shall be submitted to the Architect through the Construction Manager, for consideration before proceeding with the work. No extra compensation will be permitted because of differences between actual dimensions and measurements indicated on the project drawings.

END OF SECTION

01060 REGULATORY REQUIREMENTS**01061 APPLICABLE CODES**

- I.1 Reference section 00210 for the list of applicable codes.

01062 WAGES, LABOR & EQUAL EMPLOYMENT OPPORTUNITY

- I.1 The Trade Contractor shall provide for labor needs from the ranks of working labor locally. The Trade Contractor shall enforce the same conditions upon all Trade Subcontractors engaged by the Trade Contractor for the performance of any portion of the work.
- I.2 Successful bidders shall be required to subscribe to the principles of equal opportunity in its employment practices, and shall be required to enforce the same conditions upon all Trade Subcontractors engaged by the Trade Contractor for the performance of any portion of the work.

01063 FIRE HAZARD CLASSIFICATION

- I.1 Fire hazard classifications for materials as specified in the technical specification shall be those established by publication in Current Building Materials List published by Underwriters' Laboratories, Inc., or certified to by notarized affidavit from Southwest Research Institute, or other agency acceptable to the State Construction Code Commission.
- I.2 Where compliances are established by publication in Building Materials List, Trade Contractor shall so represent in writing to the Construction Manager. Where compliances are to be established by affidavit, Trade Contractor shall submit properly notarized affidavit that the material has been tested in accordance with requirements of ASTM E84, ASTM E119, or other specified standard, and found to qualify for the specified classifications. Affidavit shall state the name of the testing agency. The affidavit for testing is to be certified by the manufacturer for material and by the installer for installation.
- I.3 Six copies of affidavits and other representations of compliance shall be submitted to the Construction Manager at time of shop drawing or sample submittal, whichever comes first.
- I.4 In addition, the Construction Manager and Trade Contractor shall have the said materials inspected upon receipt, also before installation, and shall submit upon request prior to final acceptance of project, six copies of properly notarized affidavits by the Construction Manager and Trade Contractor as to the inspection (naming the inspector and other witnesses), certifying that the materials covered by previously submitted affidavits or other representations of compliance with the requirements for specified classifications were received at the jobsite properly labeled or otherwise certified to, and said materials were installed, and in a manner to in no way harm said compliances.

2. FIRE MARSHAL AFFIDAVITS

- 2.1 The Conditions of the Contract and Division I - General Requirements, are a part of this Section.
- 2.2 The requirements specified hereinafter refer to compliance with Codes and Regulations of governing authorities referred to in Article 4 of the General Conditions.
- 2.3 Submit in triplicate, notarized affidavits for the products required as specified in the various technical sections of the specifications. Affidavits shall be submitted to the appropriate field office responsible for the project. Affidavit shall be signed and notarized, and in the following format:

AFFIDAVIT

This is to certify that, (Name of Product) which was or will be furnished to (Company making Application of Product) for (Job or Project Name and Address) is the same in all respects in content, and specifications for mixing and/or application as the specimen tested by (Name of Laboratory) on their project or test number (Test Number) dated (Date of Test).

Flame Spread	_____
Fuel Contributed	_____
Smoke Developed	_____

END OF SECTION

01070 ABBREVIATIONS & SYMBOLS

01071 LIST OF ABBREVIATIONS

ACI	American Concrete Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASTM	American Society for Testing Materials
BIM	Building Information Modeling
BOCA	Building Officials and Code Administrators
ICBO	International Conference of Building Officials
LEED	Leadership in Environmental and Energy Design (if applicable)
DOT	Department of Transportation
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
SMACNA	Sheet Metal & A/C Contractors National Association
UBC	Uniform Building Code
OSHA	Occupational Safety and Health Administration

END OF SECTION

01095 REFERENCE STANDARDS AND DEFINITIONS**I.1 RELATED DOCUMENTS**

- a. General provisions of the Contract, including General and Supplementary Conditions, other Division I Specification Sections and Drawings, apply to this Section.

I.2 DEFINITIONS

- a. Basic Contract definitions are included in the General Conditions and Special Conditions.
- b. Indicated: The term "indicated" refers to graphic representations, notes, or schedules on the drawings, other paragraphs or schedules in the specifications, and similar requirements in the Contract Documents. Where terms such as "shown", "noted", "scheduled" and "specified" are used, it is to help the reader locate the reference; no limitation on location is intended.
- c. Regulation: The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the work.
- d. Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- e. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations."
- f. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."
- g. Installer: An "Installer" is the Contractor or an entity engaged by the Contractor, either as an employee, sub-contractor, or sub-sub-contractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- h. Unless otherwise indicated, the term "experienced" when used with the term "Installer" means having a minimum of 5 previous projects similar in size and scope to this project, being familiar with the precautions required, and having complied with requirements of the authority having jurisdiction.
- i. Trades: Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter". It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- j. Assignment of Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities,

and assignments are requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor.

This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.

- k. Project Site: The space available to the Trade Contractors for performance of construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project Site is shown on the drawings and may or may not be identical with the description of the land upon which the Project is to be built.
- l. Testing Laboratories: A "testing Laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

I.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- a. Specification Format: The Specifications are organized into Divisions and Sections based MASTERFORMAT sections 020000-480000.
- b. Specification Content: This Specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
 - 1) Abbreviated Language: Language used in Specifications and other Contract Documents is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the full context of the Contract Documents so indicates.
 - 2) Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
 - 3) The words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.
- c. Summary References: The Summary Article of each Specification Section includes references to Work Included, Related Work Specified Elsewhere, Products Furnished but not Installed by this Section, and similar phrases. These listings are provided as a guide to the Contractor to assist the Contractor in locating related information within the Specification. No guarantee regarding the absolute completeness of these references is intended or may be inferred nor shall the presence, or lack thereof, of any reference relieve the Contractor of the final responsibility for proper completion of the work.

I.4 INDUSTRY STANDARDS

- a. **Applicability of Standards:** Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference.
- b. **Publication Dates:** Where the date of issue of a referenced standard is not specified, comply with the latest referenced standard in effect at the time of Bid Opening.
- c. **Conflicting Requirements:** Where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Architect for a decision before proceeding.
- d. **Copies of Standards:** Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1) Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source and maintain these standards, for reference by the Contractor, and Architect, in a convenient location within the temporary office.
- e. **Abbreviations and Names:** Trade association names and titles of general standards are frequently abbreviated. Where acronyms or abbreviations are used in the Project Manual, they mean the recognized name of the Trade organization, standards generating organization, authority having jurisdiction, or other entity applicable. Refer to the "Encyclopedia of Associations", published by Gale Research Company, available in most libraries.

I.5 SUBMITTALS

- a. **Permits, Licenses, and Certificates:** For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

PART 2 PRODUCTS

Not applicable.

PART 3 EXECUTION

Not applicable.

END OF SECTION

01100 ALTERNATES**I.1 RELATED DOCUMENTS**

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division I Specification Sections, apply to work of this Section.

I.2 DEFINITIONS

I.2.1 Voluntary and Mandatory Alternates are defined as alternate products, materials, equipment, installations or systems for the work, which may, at the Owner's option, be selected to either add to or delete from the scope of the project.

I.2.2 Alternates may, or may not, substantially change scope and general character of the work, and must not be confused with "allowances", "unit prices", "change orders", "substitutions", and other similar provisions.

I.3 COORDINATION

I.3.1 Coordinate pertinent related work and modify surrounding work as required to properly integrate the work under each Alternate, and to provide the complete construction required by the plans and specifications. Each Alternate includes all related work required to provide the work described in the individual Alternate.

I.4 DESCRIPTION OF ALTERNATES

I.4.1 Refer to Section 00210 for a description of the basic change added to or deleted from the scope of the project.

I.4.2 The Owner reserves the right to select any Alternate following submission of the bid. If selected subsequent to the award and execution of the Agreement, the Alternate will be affected by Change Order and the sole consideration shall be the price quoted in the bid.

I.4.3 Each contractor should review each alternate and include a "deduct or add" amount on the trade contract proposal form. At the end of each alternate is a summary of the Work Categories affected by the alternate.

I.4.4 RELATED DOCUMENTS

a. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division I Specification sections, apply to work of this section.

I.4.5 DESCRIPTION OF REQUIREMENTS:

a. Definition: An alternate is an amount proposed by Bidders and stated on the Bid Form that will be added to or deducted from Base Bid amount if the Owner decides to accept a corresponding change in either scope of work or in products, materials, equipment, systems or installation methods described in

Contract Documents. Alternate Bid Pricing shall be firm for 90 days from date of award.

- b. Coordination: Coordinate related work and modify or adjust adjacent work as required to ensure that work affected by each accepted alternate is complete and fully integrated into the project.
- c. Notification: Immediately following award of Contract, prepare and distribute to each party involved, notification of the status of each alternate. Indicate whether alternates have been accepted, rejected or deferred for construction at a later date. Include a complete description of negotiated modifications to alternates, if any.
- d. Schedule: A "Schedule of Alternates" is included in Section 00210. Specification sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the work described under each alternate.
 - 1) Include as part of each alternate, miscellaneous devices, appurtenances and similar items incidental to or required for a complete installation whether or not mentioned as part of the alternate.

01110 VOLUNTARY ALTERNATES

- I.1 Bidding of Voluntary Alternates is encouraged. It shall be understood that Voluntary Alternates are the proprietary property of the bidding Tradecontractor to the extent permitted by law and will not be read aloud at bid opening.

END OF SECTION

01150 MEASUREMENT AND PAYMENTS**I.1 DESCRIPTION**

This Section describes the means and methods required for payment for work performed as an extra to the Contract.

I.2 CHANGES IN THE WORK

I.2.1 The Owner and Architect reserve the right to make changes in the work without notice to sureties or in any way rendering the Contract void.

I.2.2 Changes in the work will be described in Supplemental Instruction (SI), Construction Change Directive (CCD), Bulletins, Proposal Request, or Field Orders issued by the Architect or Construction Manager in accordance with the General Conditions and the Supplementary Conditions, and with procedures described in this Section.

I.2.3 Unless specified otherwise, Bulletins and Proposal Requests are not authorization to proceed with the changes described, and Supplemental Instructions, Construction Change Directives or Field Orders countersigned by the Owner are authorization to proceed. The Trade Contractor will be authorized to proceed with extra work by an approved quotation or signed Field Order.

I.2.4 No claims for additional compensation will be considered for changes in the work unless authorization to proceed has been given by a signed Construction Change Directive, Field Order or a Change Order issued by the Construction Manager.

I.2.5 Promptly submit to the Construction Manager, a written detailed quotation of the additional cost, credit or statement noting no change upon the receipt of each Construction Change Directive, Bulletin or Field Order.

I.2.6 Each quotation is subject to approval of the Construction Manager, Architect and the Owner, after which a Change Order will be issued to modify each Trade Contract.

I.2.7 Regard each Construction Change Directive, Bulletin or Field Order as a complete unit and enumerate in detail as to labor, materials and related item in the quotation. Provide additional information as requested by the Construction Manager, Architect and/or Owner.

I.2.8 Proceed promptly in accordance with, and upon receipt of a Change Order. The Contract Sum will be adjusted in accordance with pricing methods described in the General Conditions or as modified by the Supplementary Conditions and as specified in the contract.

END OF SECTION

01200 PROJECT MEETINGS

01215 PRE-CONSTRUCTION SITE INSPECTION

- I.1 Each Trade Contractor shall be held to have visited the site of the proposed work before submitting his proposal and to have familiarized himself with all existing conditions affecting the execution of his work in this project. No allowance or extra consideration on behalf of the Trade Contractor will subsequently be made by reason of failure to observe the site conditions, nor on behalf of any subcontractor for the same reason.

01225 PROGRESS MEETINGS

- I.1 At regular intervals, the Construction Manager shall hold meetings at the jobsite with the representatives of the various Trade Contractors engaged on the project, to coordinate the progress of the work. The Construction Manager shall notify all parties required to attend, the time and place of these meetings.
- I.2 The Construction Manager shall conduct and keep a written record of all such meetings, and distribute copies of them to the Architect, Owner, and all Trade Contractors interested in the matters covered.
- I.3 All Trade Contractors shall furnish to the Construction Manager's Field Representative, all available information concerning the conditions and progress of their work, including manpower used on a daily basis.

END OF SECTION

01300 SUBMITTALS**01305 SHOP DRAWINGS, PRODUCT DATA & SAMPLES****I.1 DESCRIPTION OF REQUIREMENTS**

I.1.1 GENERAL: This Section specifies requirements for submittals including shop drawings, product data, samples and other miscellaneous work related submittals. Shop drawings, product data samples and other work related submittals are required to amplify, expand and coordinate the information contained in the Contract Documents.

a. Shop drawings are technical drawings and data that have been specially prepared for this project, including but not limited to the following items:

- Fabrication and installation drawings.
- Setting diagrams.
- Shopwork manufacturing instructions.
- Templates.
- Patterns.
- Coordination drawings (for use on site).
- Schedules.
- Design mix formulas.
- Contractor's engineering calculations.

Standard information prepared without specific reference to a project is not considered to be shop drawings.

b. Product data includes standard printed information on manufactured products that has not been specially prepared for this project, including but not limited to the following items:

- Manufacturer's product specifications & installation instructions.
- Standard color charts.
- Catalog cuts.
- Roughing-in diagram and templates.
- Standard wiring diagrams.
- Printed performance curves.
- Operational range diagrams.
- Mill reports.
- Standard product operating and maintenance manuals.

c. Samples are physical examples of work, including but not limited to the following items:

- Partial sections of manufactured or fabricated work.
- Small cuts or containers of materials.
- Complete units of repetitively used materials.
- Swatches showing color, texture and pattern.
- Color range sets.

- Units of work to be used for independent inspection and testing.
- d. Mock-ups are special forms of samples, which are too large or otherwise inconvenient for handling in the manner specified for transmittal or sample submittals.
- e. Miscellaneous submittals are work related, non-administrative submittals that do not fit in the three previous categories, including, but not limited to the following:
 - Specially prepared and standard printed warranties.
 - Maintenance agreements.
 - Workmanship bonds.
 - Survey data and reports.
 - Project photographs.
 - Testing and certification reports.
 - Record drawings.
 - Field measurement data.
 - Operating and maintenance manuals.
 - Keys and other security protection devices.
 - Overrun stock.

1.2 SUBMITTAL PROCEDURES

- 1.2.1 **COORDINATION:** Coordinate the preparation and processing of submittals with the performance of the work. Coordinate each separate submittal with other submittals and related activities such as testing, purchasing, fabrication, delivery and similar activities that require sequential activity.

Coordinate the submittal of different units of interrelated work so that one submittal will not be delayed by the Architect/Engineer's need to review a related submittal.

The Architect/Engineer reserves the right to withhold action on any submittal requiring coordination with other submittals until related submittals are forthcoming.

- 1.2.2 **LISTING:** Prepare a separate listing showing principal submittals and their initial submittal dates as required for coordination of the work. Organize the listing by the related specification number sequence. Submit the listing within 30 days of the date of commencement of the work.

- 1.2.3 **COORDINATION OF SUBMITTAL TIMES:** Prepare and transmit each submittal to the Construction Manager sufficiently in advance of the scheduled performance of related work and other applicable activities.

Transmit different kinds of submittals for the same unit of work so that processing will not be delayed by the Architect/Engineer's need to review submittals concurrently for coordination.

- 1.2.4 **REVIEW TIME:** Allow sufficient time so that the installation will not be delayed as a result of the time required to properly process submittals, including time for

resubmittal, if necessary.

- a. Allow 15 working days for the Architect/Engineer's initial processing of each submittal. Allow a longer time period where processing must be delayed for coordination with subsequent submittals. The Architect/ Engineer will advise the Construction Manager promptly when it is determined that a submittal being processed must be delayed for coordination.
- b. Allow 10 working days for reprocessing each submittal.
- c. No extension of time will be authorized because of the Trade Contractor's failure to transmit submittals to the Construction Manager sufficiently in advance of the work.

1.2.5 SUBMITTAL TRANSMITTAL: Transmit each submittal from the Trade Contractor to the Construction Manager, by use of a submittal form. Submittals received from sources other than the Trade Contractor will be returned to the sender "without action".

1.2.6 SUBMITTAL FORM: The form required to be used for transmittal of submittals will be provided to the Trade Contractor by the Construction Manager.

- a. Record relevant information and requests for data on the submittal form. On the form, or on a separate sheet attached to the form, record deviations from the requirements of the Contract Documents, if any, including minor variations and limitations.

1.3 SPECIFIC SUBMITTAL REQUIREMENTS

1.3.1 GENERAL: Specific submittal requirements for individual units of work are specified in the applicable specification section. Comply with the requirements specified herein for each type of submittal.

1.4 SHOP DRAWINGS

1.4.1 SHOP DRAWINGS: Information required on shop drawings includes, dimensions, identification of specific products and materials which are included in the work compliance with specified standards and notations of coordination requirements with other work. Provide special notation of dimensions that have been established by field measurement. Highlight, encircle or otherwise indicate deviations from the contract documents on the shop drawings.

1.4.2 COORDINATION DRAWINGS: Provide coordination drawings where required for the integration of the work, including work first shown in detail on shop drawings or product data. Show sequencing and relationship of separate units of work, which must interface in a restricted manner to fit in the space provided, or function as indicated. Coordination drawings are considered shop drawings and must be definitive in nature.

1.4.3 Do not distribute shop drawing copies without an appropriate final "Action" marking by the Architect/Engineer to be used in connection with the work.

1.4.4 **PREPARATION:** Submit newly prepared information, drawn to accurate scale. Indicate the name of the firm that prepared each shop drawing and provide appropriate project identification in the title block.

1.4.5 Do not reproduce contract documents as the basis of shop drawings.

1.4.6 **SUBMITTAL:**

- a. One of the prints returned will be marked up and maintained by the Trade Contractor as a "Record Document".

1.5 PRODUCT DATA

1.5.1 **PRODUCT DATA:** General information required specifically as product data includes manufacturer's standard printed recommendations for application and use, compliance with recognized standards of trade associations and testing agencies, and the application of their labels and seals (if any), special notation of dimensions which have been verified by way of field measurement, and special coordination requirements for interfacing the material, product or system with other work.

1.5.2 **PREPARATION:** Collect required product data into a single submittal for each unit of work or system. Mark each copy to show which choices and options are applicable to the project. Where product data has been printed to include information on several similar products, some of which are not required for use on the project, or are not included in this submittal, mark the copies to show clearly that such information is not applicable.

1.5.3 **SUBMITTALS:** Product data submittal is required for information and record and to determine that the products, materials and systems comply with the provisions of the contract documents.

1.5.4 **SUBMITTAL:** The Architect/Engineer will retain one copy, the Owner's Representative one copy and will return the others marked with "Action" and corrections as required.

- a. Do not submit product data or allow its use on the project, until compliance with the requirements of the contract documents has been confirmed by the Trade Contractor.

1.5.5 **FINAL DISTRIBUTION:** Furnish copies of product data to trade contractors, suppliers, fabricators, manufacturers, installers, governing authorities and others as required for proper performance of the work.

1.5.6 **INSTALLATION COPY:** Do not proceed with installation of materials, products and systems until a copy of product data applicable to the installation is in the possession of the installer. Do not permit the use of unmarked copies of product data in connection with the performance of the work.

1.6 SAMPLES

- I.7.1 Submit samples for the Architect/Engineer's visual review of general generic kind, color, pattern, and texture, and for a final check of the coordination of these characteristics with other related elements of the work.

Samples are also submitted for quality control comparison of these characteristics between the final sample submittal and the actual work as it is delivered and installed.

- a. Refer to individual sections of these specifications for additional sample requirements.
- b. Documentation required specifically for sample submittals includes a generic description of the sample, the sample source, the product name or manufacturer, compliance with governing regulations and recognized standards.

- I.7.2 **PREPARATION:** Where possible provide samples that are physically identical with the proposed material to be incorporated in the work; provide full scale, fully fabricated samples, cured and finished in the manner specified. Where variations in color, pattern, or texture are inherent in the material represented by the sample, submit not less than 4 units, which show the approximate limits of variations. Where samples are specified for the Architect/Engineer's selection of color, texture or pattern, submit a full set of available choices for the material or product.

- a. Refer to individual sections of these specifications for samples, which, because of their relatively high cost or other special considerations, are intended to be returned to the Contractor for incorporation in the work. Such samples must be in an undamaged condition at the time of use. On the transmittal form to the Architect/Engineer, indicate such special requests regarding the disposition of sample submittals.

- I.7.3 **DISTRIBUTION OF SAMPLES:** Maintain the final submittal sets of samples, last returned by the Architect/Engineer, at the project site, available for quality control comparisons throughout the course of performing the work. In addition, final submittal sets may be used to obtain final acceptance of the work associated with each set.

Prepare and distribute additional sets of samples to subcontractors, suppliers, fabricators, manufacturers, installers, governing authorities, and others as required for proper performance of the work. Show final distribution on transmittal forms.

- a. Mockups and similar samples specified in individual work sections are special types of samples. Comply with sample submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

I.7 MISCELLANEOUS SUBMITTALS

- I.7.1 **INSPECTION AND TEST REPORTS:** Process inspection and test reports in accordance with Product Data requirements.

- I.7.2 **WARRANTIES:** Refer to Section 01740 for specific general requirements on warranties, product bonds, workmanship bonds and maintenance agreements. In addition to copies desired for the Trade Contractor's use, furnish at least 2 executed

copies of such warranties, bonds or agreements. Provide at least 2 additional copies where required for maintenance manuals.

- I.7.3 **STANDARDS:** Where submittal of a copy of standards is indicated, submit at least 2 copies of standards for the Architect/Engineer's use. Where workmanship, whether at the project site or elsewhere is governed by a standard, furnish additional copies of the standard to fabricators, installers and others involved in the performance of the work.
- I.7.4 **CLOSEOUT SUBMITTALS:** Refer to Section 01700 and to individual sections of these specifications for specific submittal requirements of project closeout information, materials, tools, and similar items.
- I.7.5 **RECORD DOCUMENTS:** Furnish set of original documents as maintained on the project site. Along with original marked up record drawings provide electronic copies of marked up drawings.
- I.7.6 **OPERATING AND MAINTENANCE DATA:** Unless specified otherwise, furnish at least 4 bound copies of operating data and maintenance manuals, and one electronic copy.
- I.7.7 **MATERIALS AND TOOLS:** Refer to individual sections of these specifications for required quantities of spare parts, extra and overrun stock, maintenance tools and devices, keys, and similar physical units to be submitted.
- I.7.8 **GENERAL DISTRIBUTION:** Provide additional distribution of submittals to subcontractors, suppliers, fabricators, installers, governing authorities, and others as necessary for the proper performance of the work. Include such additional copies of submittals in the transmittal to the Architect/ Engineer where the submittals are required to receive "Action" marking before final distribution. Record distributions on transmittal forms.

I.8 ARCHITECT/ENGINEER'S ACTION:

- I.8.1 **GENERAL:** The Architect/Engineer will review each submittal, mark with appropriate "Action", and where possible return within 10 working days of receipt. Where the submittal must be held for coordination the Architect/Engineer will so advise the Trade Contractor via the Construction Manager without delay.
- I.8.2 **ACTION STAMP:** The Architect/Engineer will stamp each submittal to be returned with a self explanatory action stamp, appropriately marked to indicate whether the submittal returned is for unrestricted use, final but restricted use (as marked), must be revised and resubmitted (use not permitted) or without action (as explained on the transmittal form). Refer to Section 00210 for action stamp markings.
- I.8.3 **FINAL UNRESTRICTED RELEASE:** Where the submittals are marked as follows, the work may proceed provided it complies with the requirements of the contract documents; acceptance of the work will depend upon that compliance.
- I.8.4 **MAKE CORRECTIONS NOTED:** When the submittals are marked as follows, the work may proceed provided it complies with both the Architect's/ Engineer's notations

or corrections on the submittal and with the requirements of the contract documents; acceptance of the work will depend on that compliance.

- I.8.5 **REVISE AND RESUBMIT:** When the submittals are marked as follows, the work may proceed provided it complies with both the Architect's/Engineer's notations or corrections on the submittal and with the requirements of the contract documents, acceptance of the work will depend on that compliance. Revise the submittal and resubmit for Architect's/Engineer's verification of compliance.
- I.8.6 **REJECTED:** When the submittal is marked as follows, do not proceed with the work including purchasing, fabrication, delivery, or other activity. Revise the submittal or prepare a new submittal in activity. Revise the submittal or prepare a new submittal in accordance with the Architect's/Engineer's notations stating the reasons for returning the submittal; resubmit the submittal without delay. Repeat if necessary to obtain a different action marking. Do not permit submittals with the following marking to be used at the project site, or elsewhere where work is in progress.

END OF SECTION

01310 CONSTRUCTION SCHEDULES**I.1 EXECUTION OF THE WORK****I.2 CONSTRUCTION PLANNING**

Within five (5) days after the award of each Trade Contract, all Trade Contractors shall submit the following scheduling information:

I.2.1 A Procurement Status Report, in a format acceptable to the Construction Manager, which shall itemize all material and equipment, submittal and review requirements, fabrication and delivery lead times, and delivery requirements needed to meet the Trade Contractor's schedule as well as the overall project schedule.

I.2.2 Each Trade Contractor shall submit their own detailed schedule, in a format acceptable to the Construction Manager, which incorporates: the procurement information of Article I.1.1-above, all known interfacing of other trades, the Trade Contractor's anticipated durations, and all other information the Trade Contractor feels is necessary to identify their requirements for the Construction Manager to coordinate with the Construction Manager's direction and scheduling.

I.3 CONSTRUCTION SCHEDULING

I.3.1 A detailed Construction Schedule will be prepared with the Trade Contractor's input immediately after award of bids and submittal of the above information. Section 00200 provides the "preliminary construction schedule" which describes the approximate durations of sequence of the projects. The completion dates provided are firm and must be achieved. It is intended that all bidders agree to accept the final schedule, and acknowledge that other Trade Contractor's work is paced by, or dependent upon, the various activities being able to commence and proceed with associated activities as scheduled. The approved Construction Schedule shall be regarded as a firm contractual commitment by all parties affected therein.

I.3.2 All Trade Contractors and their Trade Subcontractors recognize and shall accept modifications to the schedule which are reasonable, in the opinion of the Construction Manager for the general interest of the project, as a result of allowable time extensions (formally or informally approved) in any contract, and such modifications are inherent to the construction process and shall not qualify as a basis for extra compensation from the Construction Manager or Owner."

I.3.3 If a CPM network schedule is used to coordinate the work of the project, start and finish dates for each work activity will be furnished to the Trade Contractor to schedule his work. Periodically, these dates will be revised to reflect changed project conditions. The Construction Manager will attempt to schedule the start of the work of any Trade Contractor on the date for the activity, and the Trade Contractor agrees to cooperate in following that direction.

I.3.4 If it is apparent that a Trade Contractor is not going to complete his work in the time allotted, said Contractor must notify the Construction Manager within five (5) days after publication of the schedule. Adjustments may be made to accommodate a Trade Contractor, if the above notification is received and it is within the dates established.

Otherwise the schedule shall be deemed accepted by all parties and become the schedule for the Trade Contractor. Each Trade Contractor will be responsible to be familiar with the schedule and how it will effect or modify his operations, including his coordination with the activities of other Trade Contractors.

- I.3.5 It is expressly agreed that time is of the essence for the completion of work under his contract, and the Trade Contractor agrees to perform the work within the time and in the manner specified or within the time extensions the Owner may grant; provided, however, that the Trade Contractor may be liable for any damages suffered by the Owner due to failure of the Trade Contractor to perform the specified work within the specified time.
- I.3.6 The Trade Contractor, within five (5) days after being notified to commence work, agrees to commence work in the field of such points as the Construction Manager may designate, and to continue diligently to perform the work, and to fully complete all of his work to the satisfaction of the Construction Manager and Owner. The work shall be carried to completion with utmost speed.
- I.3.7 If the Trade Contractor delays progress for any reason other than those allowed by the General Conditions, and refuses to adequately man the project or to work overtime, the Construction Manager may accelerate the work of subsequent Trade Contractors and backcharge all costs to the late Trade Contractor. All direction in this regard will be given in writing to the Trade Contractor.

END OF SECTION

01370 SCHEDULE OF VALUES

- I.1 REQUIREMENTS: Prior to the first Application for Payment, the Trade Contractor shall submit for approval, a detailed Schedule of Values, on AIA Form G703 or equivalent. The schedule of values must be broken down by the various aspects and areas of work. Breakdown shall include **Labor and Material break downs for each work item**, General Conditions, Mobilization, Demobilization, Punchlist and Administrative Close-out. Application for Payments will not be processed until Schedule of Values is approved. Schedule of Values must be broken down by Areas A, B, C, & D in response to the construction documents. In addition, each line item shall not exceed \$100,000

END OF SECTION

01400 QUALITY CONTROL**01410 TESTING LABORATORY SERVICES****I.1 TESTING LABORATORY SERVICES**

I.1.1 **GENERAL:** All work (materials and installation procedures) as indicated in specifications, shall be tested and inspected by an independent testing and inspection agency, approved by the Architect/Engineer to provide the quality control requirements in accordance with these specifications. Results of these tests and inspections when performed in accordance with these specifications will not be disputed by either party. Failure of the Trade Contractor to provide quality control in accordance with this specification may result in the replacement of the work at the Trade Contractor's expense.

I.1.2 Owner Provided Testing – Refer to Section 00210 and work category descriptions for testing services provided by the Owner, if applicable.

I.2 TRADE CONTRACTOR'S RESPONSIBILITY

I.2.1 Unless identified otherwise, Trade Contractors are responsible for testing and/or balancing as defined in their work categories and/or designated specification sections.

I.3 TESTING & INSPECTION AGENCY RESPONSIBILITIES

I.3.1 Perform all testing and inspection of the work in accordance with these specifications. Furnish qualified personnel and sufficient equipment in a timely manner when required by the Trade Contractor and/or Architect/Engineer to perform all testing and inspection in accordance with these specifications. Provide written reports, electronically and at least one hard copy, in a timely manner of the work tested and inspected. The reports shall include complete material test results and for in place material, a sketch showing the exact location where the test was taken on the project site. The inspection and testing agency and its representatives are not authorized to revoke, alter, relax, enlarge or release any requirements of the contract documents, nor to approve or accept any portion of the work.

Work will be checked by representatives of the testing agencies as it progresses, but failure to detect any defective work or product will not in any way prevent later rejection when such defect is discovered, nor will it obligate the Owner to final acceptance. When it appears that the work or product furnished is in non-conformance with the contract documents, the representative of the testing agency will direct the attention of the Architect/Engineer and Trade Contractor to such non-conformance.

I.4 AUTHORITY OF THE ARCHITECT/ENGINEER

I.4.1 The Architect/Engineer may order from time to time additional tests and inspection beyond those required, if in his opinion, the subject work may not be meeting specification. The cost for these tests and inspections shall be born by the Trade Contractor if results indicate that work was NOT within the project specifications. The

Architect/Engineer may terminate the testing and inspection agency. The Trade Contractor shall then furnish to Construction Manager the name of an additional agency for approval. The Architect/Engineer may perform quality control tests and inspections.

END OF SECTION

Indoor Air Quality (IAQ) Management Plan - During Construction

Objective

Protect indoor air quality during construction for the safety of construction workers and for the assurance of a high quality indoor environment after building occupancy.

Plan

- Materials have been specified to minimize indoor air pollutants from material off-gassing. Subcontractors are to make every effort to meet the specified requirements for materials.
- Those materials and construction practices that do not specifically meet the requirements of the specifications, should be of the lowest toxicity available in the industry.
- For those materials and construction practices that introduce air quality concerns, use the following procedures to help prevent buildup of contaminants to the indoor environment.

Definitions

- Absorptive Materials: Gypsum board, acoustical ceiling tile and panels, carpet and carpet tile, materials containing/wrapped in fabrics, fibrous insulation/materials and other materials containing materials with similar absorptive characteristics.
- Contaminants: Gases (i.e. carbon monoxide, acetylene), paint, sealants and coating vapors, regulated pollutants, airborne mold and mildew, products that emit volatile organic compounds during installation, drying, or curing.
- Particulates: Dust, dirt, smoke, concrete dust, masonry dust, drywall dust, wood dust, silica, fiberglass and other airborne solid matter.

HVAC Protection

- Mechanical systems protection – all ductwork not being worked on should be covered to prevent the infiltration of particulate matter. Care should also be given to protect ductwork from collection of particulate matter during delivery to the site. All mechanical equipment that has openings where particulate matter could enter, should be covered at all times.
- If possible, avoid using permanently installed air handlers for temporary heating/cooling during construction – particularly during demolition.
- Do not store construction or waste materials in the mechanical room.
- Use temporary filtration media during construction to protect HVAC at each return air grille; filtration media shall have a Minimum Efficiency Reporting Value (MERV) of 8 as determined by ASHRAE 52.2 – 1999. Isolate the return side of the HVAC system from the surrounding environment as much as possible. Return side shall have the heaviest work areas dampered off and all return system openings sealed with plastic. Return side shall be shut down whenever possible during heavy construction and demolition.
- When the system is off, all supply ducts, equipment and openings should be sealed with plastic for further protection.
- Provide continuous ventilation rate of one air change per hour minimum during construction. Provide additional ventilation as may be necessary to protect workers' health and avoid the accumulation of volatile compounds, dust and other harmful airborne contamination.

- Filtration media must have a Minimum Efficiency Reporting Value (MERV) of 8.
- Maintain a list, and cut sheet, of each air filter used during construction and at the end of construction. Include the MERV value, manufacturer name and model number.

Source Control

- Subcontractors to use low emitting products as specified. When limited resources are available, materials should be used that have the low toxicity emissions available.
- Use electrically powered equipment when feasible and switch from diesel to bottled gas for equipment such as generators or fork lifts.
- High levels of contaminant odor generated during removal of contaminated soils - consult Construction Manager and testing consultant upon first discovery of a contaminant odor. Respirators may need to be worn.
- Gaseous vapors generated during temporary heating operations – contractors to utilize explosive gas detectors that detect harmful levels of carbon monoxide, propane, natural gas, and smoke. Use electric or steam heaters for temporary heat when possible.
- Concrete floor sealing, block sealing and waterproofing - utilize fans, open windows, and respirators.
- Other- Allow sufficient time for dissipation of odor after installation of materials with elevated concentrations of VOC's and other moisture related/containing materials (i.e. fluid applied coatings, adhesives).
- Exhaust pollution sources to the outside through an available exhaust system or portable fan vented to the outside. Depending on the nature of the material and the location of the exhaust, special filtration may or may not be necessary.
- If exhausting the pollution sources is not feasible, the use of a portable air cleaner may be effective.

Pathway Interruption

- Erect barriers to contain the construction area. The barriers should be selected based upon the worst case contributor to dust or odor escaping from the site.
- Locate trash dumpsters, recycling centers and pollutions sources at reasonable distances from the site, so as not to affect the air quality of the surrounding areas.
- Depending on the weather conditions, ventilate using 100% outside air to exhaust contaminated air directly to the outside during installation of VOC-emitting materials.
- Depressurize the work area allowing the air pressure differential between construction and clean areas to contain dust and odors.

Housekeeping

- Isolate areas with high particulate concentration using solid physical barriers from floor to ceiling (plastic sheeting or similar).
- Asbestos abatement- A certified abatement firm and testing consultant will be hired to handle these situations. No trades are to be present in areas while abatement activities are taking place. Areas being abated shall be separated from trades/Owner occupants by a solid physical barrier.

- Control dust and particulate concentration with wetting agents or sweeping compounds.
- If vacuum cleaners are being used for cleaning activities, use high efficiency particulate air filters in them.
- Remove spills of high VOC-emitting materials immediately.
- Use low-toxic cleaning supplies for surfaces, equipment and worker's personal use.
- Do not allow water to accumulate in the building envelope or anywhere on-site. Take care to remove the accumulated water as soon as possible and disinfect the area if necessary.
- Do not install any building materials that have become wet. If building materials do become wet then dry the materials out completely before they are covered up. Failure to do this will result in harmful mold growth which will be very expensive to remediate after the fact.
- When performing sanding operations for gypsum board assemblies, provide the following protection:
 1. Isolate the space
 2. Provide plastic sheet separation during sanding
 3. Close and seal all air system devices and ductwork
 4. Sequence construction to avoid contamination of other spaces with gypsum dust
 5. Provide worker protection

Scheduling

- Consult manufacturers for appropriate dry out times of materials prior to arrival on site. Factory aging of materials with strong odor emissions should be considered prior to delivery of materials on-site.
- Absorptive materials should be sequenced to arrive on-site when moisture and humidity levels are at acceptable levels based upon manufacturer's written/acceptable requirements.
- Products that do not meet the specified requirements, due to limited availability of materials, should be stored in dry, well ventilated areas for odor dissipation (off-gassing/conditioning).
- If absorbent materials must be stored in high humidity on site, protect absorbent materials with an impermeable moisture barrier, preferably a barrier containing recycled content.
- Upon completion of construction, replace all filtration media immediately prior to occupancy.
- After construction ends consideration should be given for conducting a baseline indoor air quality testing procedure for the affected space in the building.

Building Flush Out

- The Construction Manager, with the help of the Mechanical and Controls Contractors, will conduct a building flush out with new filtration media at 100% outside air after construction ends and prior to testing. The building flush out shall comply with the latest LEED requirements for the *Construction IAQ Management Plan – Before Occupancy*

Management & Enforcement of Plan

Construction Manager:

Superintendent shall give a copy of this plan to all subcontractors and shall reinforce the requirements of this plan on a daily basis and reserves the right to modify or change the plan at his or her discretion

based on the current safety situation of the site. A testing consultant will be hired to monitor and report air contaminants and ventilation effectiveness at the discretion of the Superintendent. Project Engineer will support Superintendent in duct protection inspections throughout building.

Photo Documentation:

The Project Superintendent or Project Engineer shall document implementation of the IAQ Plan by taking at least 6 photos on at least 3 different occasions throughout the project. These photos should show each of the IAQ strategies described in this plan.

Architect:

Review compliance with plan during weekly site visits.

Owner:

Reserves the right at any time to verify compliance and request a team meeting to review project safety goals at his/her discretion.

Resources:

These guidelines were developed through referencing the SMACNA IAQ Guidelines for Occupied Buildings under Construction and the USGBC LEED-NC for New Construction Reference Guide.

- www.smacna.org
- www.usgbc.org

01500 TEMPORARY FACILITIES**I.1 DESCRIPTION OF REQUIREMENTS**

- I.1.1 This section specifies requirements for temporary services and facilities, including such items as temporary utility services, temporary construction and support facilities, and project security and protection. Refer to Section 00210 for additional requirements.
- I.1.2 **USE CHARGES:** No cost or usage charges for temporary services or facilities are chargeable to the Owner or Architect/Engineer. The Construction Manager is responsible for these charges where indicated. In all other cases the Trade Contractor requiring same is responsible for the charges incurred. Cost or use charges for temporary services or facilities will not be accepted as a basis of claims for a change order.

I.2 PROTECTION OF EXISTING FACILITIES

- I.2.1 Each Trade Contractor shall provide and maintain proper shoring and bracing for existing underground utilities, sewers, and building foundations encountered during his excavation work, to protect them from collapse or other type of damage until such time as they are to be removed, incorporated into the new work, or can be properly backfilled upon completion of new work.
- I.2.2 Each Trade Contractor shall provide and maintain proper shoring and bracing for existing structures and finishes encountered during the execution of his work to protect from collapse or other type of damage until such time as they are to be removed, incorporated into the new work, or can be properly backfilled upon completion of new work.
- I.2.3 Each Trade Contractor shall provide and maintain temporary protection for new and existing work during the execution of his work to protect from dirt and damage. Any damage to new and/or existing work resulting from the lack of or inadequate temporary protection shall be this contractor's responsibility to restore.

01510 TEMPORARY UTILITIES**I.1 TEMPORARY ELECTRICAL POWER & LIGHTING**

Unless identified otherwise, the following provisions shall apply:

- I.1.1 The temporary electrical power and lighting will be installed and maintained by the Electrical Trade Contractor (WC 28). Refer to Section 00210 to verify if the Owner shall pay for all power consumed for the temporary electrical service.
- I.1.2 All Trade Contractors shall obtain the power for their temporary electric requirements from the existing power source available on the site. All necessary lugs, transformers, disconnect switches, fuses, cable, posts, ground fault interrupters, etc., required for connection to the power source and distribution, including wires, cable, supports, etc., shall be provided by Trade Contractor, all as coordinated and approved by the Construction Manager. The Owner shall pay for all reasonable amounts of power consumed for the temporary electrical service. Electric heaters will not be allowed for heating temporary trailers and offices.

- 1.1.3 Any electrical requirements for power or lighting beyond those listed in this paragraph shall be the responsibility of the Trade Contractor requiring them.
 - 1.1.4 Overtime work requiring standby electricians shall be at the expense of the Trade Contractor requiring same. Installation of temporary electrical power and lighting shall be as scheduled by the Construction Manager.
 - 1.1.5 Electric welder machines will not be allowed to be used without the express permission and approval of the Construction Manager and Owner. The Trade Contractor would have to pay for all equipment and materials required to provide the distribution and power supply if permission were granted to use electric welders, all as coordinated and approved by the Construction Manager.
 - 1.1.6 All temporary electrical installations shall be in compliance with the latest National Electrical Code or OSHA, whichever is more stringent.
- 1.2 TEMPORARY HEAT
- 1.2.1 Unless identified otherwise, all equipment and labor for temporary heat after building enclosure shall be furnished by the Mechanical Trade Contractor (WC 27). Refer to Section 00210 to verify if energy will be supplied by the Owner when the heating equipment is connected to the existing power system.
- 1.3 COLD WEATHER PROTECTION
- 1.3.1 Unless identified otherwise, each Trade Contractor shall provide the temporary heat and protection necessary to allow his work to continue during cold weather. The building shall be considered to be enclosed when the exterior walls, roofing and temporary closures to all wall and roof openings are in place.
- 1.4 TEMPORARY TELEPHONE SERVICE
- 1.4.1 Each Trade Contractor shall provide temporary job site telephone service as required at his own expense.
 - 1.4.2 Telephone numbers for summoning aid, such as the Police Department, the Fire Department, physicians, ambulances, and rescue squads from outside sources shall be conspicuously posted by the Construction Manager at the site of the work.
- 1.5 TEMPORARY POTABLE WATER SUPPLY
- 1.5.1 Unless identified otherwise, the Mechanical Trade Contractor (WC 27) shall furnish, install, maintain, and remove if necessary, a temporary water supply system as required. Refer to Section 00210 to verify if Owner shall pay for water usage fees when connected to the Owner's existing system.
- 1.6 TEMPORARY TOILET FACILITIES
- 1.6.1 The Construction Manager shall provide and maintain adequate toilet facilities in a clean and sanitary condition for the use of all Trade Contractors. The use of chemical toilet facilities will be permitted.

I.7 FIRST AID

I.7.1 The Trade Contractor shall provide a completely equipped first-aid kit, which shall be readily accessible at all times and shall be provided and maintained at the site of the work in a clean and orderly condition. The required number of employees who have been properly instructed shall be designated to be in charge of first aid work. At least one such employee shall be available at all times that the work is in progress.

I.8 TEMPORARY FIRE PROTECTION

I.8.1 Each Trade Contractor shall be responsible for temporary fire protection related to his own work.

I.8.2 Unless identified otherwise, The General Trades Contractor (WC 20) shall furnish fire extinguishers in accordance with OSHA, as required for the building. Each Trade Contractor shall furnish fire extinguishers in accordance with OSHA requirements when his work required additional extinguishers.

01520 CONSTRUCTION AIDS

I.1 HOISTING & SCAFFOLDING

I.1.1 All hoisting required in the performance of each Trade Contractor will be provided by that Contractor. If a crane is 125 tons or greater, or is a tower crane, only certified operators are allowed. Trade Contractor is responsible for providing required documentation of certification of operators PRIOR to start of work.

I.1.2 Each Trade Contractor shall provide his own scaffolding, which shall be in accordance with all OSHA safety requirements.

01530 BARRIERS

I.1 TEMPORARY SITE FENCE

I.1.1 The temporary site fencing will be provided by the Construction Manager unless otherwise specifically noted.

I.2 TEMPORARY BARRICADES, TRAFFIC CONTROL & TRAFFIC LIGHTS

I.2.1 Each Trade Contractor is responsible for the maintenance and replacement (when removed) of all temporary barricades, traffic control, and traffic lights. In addition, each Trade Contractor shall be responsible for installation of temporary barricades in accordance with MIOSHA requirements at openings created by that trade contractor.

01540 SECURITY

I.1 WATCHMAN

I.1.1 Unless identified otherwise, the services of a watchman will not be provided by either the Owner or the Construction Manager. Each Trade Contractor shall be responsible for, and make good any loss not covered by the Builder's Risk Insurance and shall be

responsible for the associated deductible costs.

01550 ACCESS ROADS & PARKING AREAS

I.1 CONSTRUCTION PARKING

I.1.1 Refer to Section 00210 for parking requirements.

01560 SPECIAL CONTROLS

I.1 **WORK INCLUDED:** The work covered by this Section of the Specifications pertains to Special Controls.

I.1.1 **LIMITING EXPOSURES OF WORK:** Each Trade Contractor shall supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Such exposures include, where applicable, but not by way of limitation the following:

- Excessive static or dynamic loading.
- Excessive internal or external pressures.
- Excessively high or low temperatures.
- Thermal shock.
- Excessively high or low humidity.
- Air contamination or pollution.
- Water or ice.
- Solvents.
- Chemicals.
- Light.
- Puncture.
- Abrasion.
- Heavy traffic.
- Soiling.
- Bacteria.
- Insect infestation.
- Combustion.
- Electrical current.
- High speed operation, improper lubrication, unusual wear or other misuse.
- Incompatible interface.
- Destructive testing.
- Misalignment.
- Excessive weathering.
- Unprotected storage.
- Improper shipping or handling.
- Theft and Vandalism.

I.2 SPECIAL CONTROLS DESCRIPTIONS

I.2.1 **SPECIFICATIONS BY REFERENCE:** Where reference is made in the specifications to standards of any technical society, association, governmental agency, etc., said specifications or standards shall apply and be binding as though fully repeated therein

and are to be considered as a part of these specifications.

- I.2.2 RELATED WORK:** The contractor shall conduct his work in a manner to prevent air, water, and noise pollution by establishing adequate controls during the construction operations. All controls shall be in accordance with the applicable laws of the State of Michigan.
- A. AIR POLLUTION:** The open burning of combustible wastes from clearing and grubbing operations and of waste construction materials will not be permitted. The Contractor shall dispose of all such wastes at sanitary landfill(s) licensed by the Michigan Department of Natural Resources.
 - 1) Dust Control:** The contractor shall maintain all traveled areas in a safe, dust-free condition at all times. To accomplish this, the Contractor shall remove any tracked materials such as mud, dirt, etc. from construction and haul roads, furnish and apply chloride treatment to temporary roads, furnish and install temporary road patches or surfaces, or any approved methods or systems.
 - B. WATER POLLUTION:** The contractor will be required to perform all construction operations in a manner that will conform to the requirements of Act 347, Soil Erosion and Sedimentation Control Act. Methods to be used are indicated herein (Items No. 1 thru No. 46) and referenced with numbers and symbols to the plans when special details are designated. The contractor shall also be required to perform all work in conformance with the requirements of Act 346, Inland Lakes and Streams. The permits for the construction will be obtained by the Owner, unless otherwise noted in the work category description.
 - C. NOISE POLLUTION:** The contractor shall exercise judgment in the conduct of operations, which by nature result in excessive noise. All such operations shall be coordinated with the Construction Manager and Owner to avoid disruption to Owner operations.
 - D. CONSTRUCTION DEBRIS:** All construction debris shall be removed from the construction site(s) at regular intervals and disposed of at sanitary landfill(s) licensed by State department having authority.
 - E. HOUSEKEEPING:** The project work areas shall be maintained in a neat and clean condition and all debris and waste materials shall be removed from work areas on a daily basis.
 - F. PERMANENT HVAC SYSTEM:** If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction and clean HVAC system as required in Division 01 Section "Closeout Procedures."
- I.2.3 VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL:** The contractor shall be responsible for providing, installing, and maintaining vehicular and pedestrian traffic control signs, lights, and barricades in conjunction with construction operations where applicable. Vehicular traffic control measures shall be in accordance with the Michigan Manual of Uniform Traffic Control Devices.

- A. **STREET CLOSING:** No street or roadway may be closed to traffic without prior written permission of the governing body having jurisdiction over the street or roadway.
- B. **EXISTING TRAFFIC CONTROL SIGNS:** Existing traffic control signs which conflict with construction operations may be temporarily removed. The contractor shall provide traffic control for the duration of the sign displacement and signs shall be replaced in the proper location immediately after construction operations adjacent to the sign locations are completed.

01590 FIELD OFFICES

- I.1 The Construction Manager shall maintain a temporary field office at the site, equipped with telephone, plan desk and plan files, properly heated and illuminated for his, the Architect's, and the Owner's exclusive use. Each Trade Contractor shall provide his own office as necessary. Temporary offices shall be arranged to avoid interfering with construction, and location shall be approved by the Construction Manager.

01595 SMOKING POLICY

- I.1 Refer to Section 00210 for Smoking Policy. Failure to comply with this policy may result in the loss of smoking privileges for all construction personnel on the project, and/or dismissal from the site. There will be no smoking in the Construction Manager's field office.

END OF SECTION

01600 MATERIAL AND EQUIPMENT

01610 MOVING MATERIALS

- I.1 If at any time it becomes necessary to move materials temporarily located on site, which is to enter into their final construction, the Trade Contractor furnishing the materials shall, when so directed by the Construction Manager, move them to another location at his own expense.

01620 STORAGE & PROTECTION

I.1 GENERAL

- I.1.1 Each Trade Contractor shall use the area designated by the Construction Manager for storage of materials, etc., but shall confine this area to a minimum within Contract limits as shown on the plans. Storage beyond this area will not be permitted. Roof areas shall NOT be used for the storage of windows, removals, debris or any other construction items. Storage on the site is very limited and Trade Contractors shall provide for the bulk of materials remote from the site. Refer to Section 00210 for project specific requirements.
- I.1.2 Each Trade Contractor shall provide suitable and sufficiently enclosed and covered spaces, with raised flooring, to protect materials and equipment from damage by weather or construction work.

01625 SALVAGING OF MATERIALS

I.1 GENERAL

- I.1.1 If applicable, materials or equipment shown on drawing or specified herein to be salvaged but not reused, shall become the property of the Owner and each Trade Contractor shall deliver said items to location designated by the Construction Manager. All items not specified to be salvaged for reuse or delivered to the Owner, will be removed from the project site and disposed of legally.

01631 PRODUCTS AND SUBSTITUTIONS

I.1 SUMMARY

Specified Herein: General Requirements for Substitutions and Product Acceptance.

I.2 SUBSTITUTION SUBMITTALS

- I.2.1 The following submittals shall be required for materials, assemblies, and component parts of assemblies where scheduled in the "Submittals" Section of Division I, specified in the Trade Sections or required by the Construction Manager or the Architect as a condition precedent to acceptance of a proposal material, a statement of:

- a. Product Certification
- b. Manufacturer's review of documents and conditions of use.
- c. Approval of proposed Applicator or Installer.
- d. Proposal for on-site instruction.
- e. Manufacturer's supervision of inspection.

I.2.2 Submittals shall be in same form as specified for Request for Acceptance of Materials described herein and, wherever practical should accompany such request.

I.2.3 Submit description of the complete system for each assembly listing all proposed components and acknowledging adjacent materials which are in contact with material or function as a part of the system.

I.2.4 Where one or more of these services are specified, they are considered to be an integral part of the new system. A proposal to delete any specified service will be considered as a reduction in Scope, subject to general conditions for changes in the work.

I.3 MODIFICATIONS

I.3.1 Letter of certification, or request for acceptance, shall indicate all modifications and clarifications to the Contract Documents, including additional instructions for installation or use, which are, in the opinion of the Manufacturer, necessary for proper performance.

I.3.2 If any of the services specified under this Section are not scheduled as a requirement but are normally recommended by the Manufacturer, notify the Construction Manager and the Architect of such recommendation.

I.3.3 Modifications and clarifications to the Contract Documents, which in the opinion of the Architect do not affect the finished quality of appearance of the Work, will be accepted, subject to the following conditions:

- a. Conform to the functional intent of system design.
- b. Accepted by all contracting parties, including Subcontractor and Manufacturer.
- c. Include all costs in the original bid price for adjustments to the scope of the Work including the work of other trades.

I.3.4 Modification which affect the scope of the work, or the work of other trades, and for any reason can not be settled prior to bidding, will be considered under the terms of the General Conditions as Changes in the Work.

I.4 PROTECTION CERTIFICATION

I.4.1 Product certification is a statement by the manufacturer that to the best of its knowledge, the material has not failed to perform when previously used for similar purposes and under similar conditions of use.

I.4.2 Obtain and submit statements from manufacturers and fabricators of materials,

assemblies and component parts of assemblies that the product as delivered conforms to their published data.

I.4.3 Obtain manufacturer's approval for all variations from published recommendations for installation, operation and conditions of use.

I.4.4 It shall be the duty of the supplier of any material on this Work to submit evidence, upon request, that his material is in compliance with the applicable codes, ordinances and standards referenced therein, in the method in which the material is used in this project.

I.5 GENERAL REQUIREMENTS FOR SUBSTITUTIONS

I.5.1 The Contract Documents indicate and call for certain articles, devices, products, fixtures, materials and work by named manufacturers. The Contract shall be based on materials and work manufactured and supplied by those named.

I.5.2 Definitions:

- a. Specified Manufacturers or Materials: Those named in the Contract Documents.
- b. Substitutions: Manufacturers or materials, which are not named in the Contract Documents.

I.5.3 Trade Contractor's Responsibility: Manufacturers and trade names are specified to establish a standard. The fact that a product is named does not constitute a guarantee by the Architect that the named Manufacturers have agreed to provide or to modify their product in order to meet all requirements of the Contract Documents. It is the responsibility of the Trade Contractor to obtain assurances from its suppliers that the product it proposes to use will meet all requirements of the Contract Documents. The fact that a material or Manufacturer is a substitution shall not act to either increase or decrease the Trade Contractor's responsibility for performance.

I.5.4 Substitutions During Bidding:

- a. Substitutions shall be included in the proposal under the following conditions only and shall follow all requirements of "Acceptance of Substitutions". Paragraph I.5.6.
- b. When the Trade Contractor knows of another product of equal or better quality and performance, which is more readily available.
- c. When the trade contractor has had unsatisfactory experience with one or more of the specified products or has reason to believe that the specified manufacturer will not provide the necessary guarantees or assume responsibility for performance.

I.5.5 Substitutions After Contract:

- a. Substitutions proposed after execution of the Contract will, if approved by the Architect, be handled in accordance with Article 12 "Changes in the Work" as modified and supplemented herein. A **Request for Change** is sufficient authorization for the Trade Contractor's issuance of a purchase order.

- b. A change of Manufacturer or product previously approved will be considered and handled as a Change in the Work.
- c. Increases in the cost of materials or Work resulting from the failure of the Trade Contractor to issue a purchase order within the time limits stated in the specified manufacturer's original proposal shall be the sole responsibility of the Trade Contractor and shall not be grounds for a substitution or an increase in the Contract Sum.

I.5.6 Acceptance of Substitutions:

- a. Substitutions will be considered for any manufacturer except where only one manufacturer is listed.
- b. In all cases where substitutions are proposed by the trade contractor, it shall be the sole responsibility of the trade contractor to provide adequate data and samples as required by the Architect to evaluate the substitution.
- c. Request for acceptance of substitution shall be presented not less than seven (7) days in advance of the date on which a decision by the Architect is required and shall:
 - 1) Include all information required by this Specification.
 - 2) State the reason for the substitution.
 - 3) Include accurate cost data if the substitute material involves a change in the Contract Sum, or if so requested by the Architect.
 - 4) Provide or make arrangements for the Manufacturer to provide complete data describing the proposed substitution, including samples and itemized comparison with the specified materials, and work, if requested by the Architect.
- d. The Architect shall not be obliged to justify his reason for rejecting a proposed substitution.
- e. In the event that a substitution is accepted conditionally on the Contractor's agreement to assume full responsibility for equality and performance, the Contract shall provide a full value warranty and agree to make good all damages resulting from the failure of the substitute product.

I.6 ACCEPTANCE OF MATERIALS AND MANUFACTURERS

I.6.1 Standard Materials:

- a. Architect's acceptance applies to the Manufacturer only and shall not act to permit any deviation from other requirements of the Specifications.
- b. Acceptance will be based on the Manufacturer's specifications at time of issuance of Bidding Documents. Deviations from such specifications shall be considered as a substitution.
- c. Requests for acceptance shall be in tabular form stating Specification paragraph and material selected, except as otherwise provided.

- d. Shop Drawings shall not indicate any material for which acceptance has not been received, unless accompanied by a separate request for approval. In no case shall Architect's review and return of Shop Drawings constitute and acceptance of either specified or substitute manufacturers or materials.

I.6.2 Special Materials

- a. Special materials are materials, which are specified as requiring supervision or technical services by the manufacturer for proper installation.
- b. Request for acceptance of special materials shall include a letter from the manufacturer which letter shall contain all information required hereinafter.

I.6.3 Materials Involving Supplementary Warranty or Maintenance Contract:

- a. These materials shall be submitted as a request for acceptance over the signature of a qualified technical representative in the direct employment of the manufacturer or such other person as the manufacturer may authorize in writing. Request for acceptance shall contain the following information:
 - 1) Name of project.
 - 2) Name of Contractor, Subcontractor or other party to whom material is furnished.
 - 3) Reference to Specification Section and Article where material is specified and other Contract Documents necessary for identification.
 - 4) Statement of acceptance of documents, conditions, and performance requirements.
 - i. Statement that documents as issued are in accordance with manufacturer's recommendations for use of specified materials, or
 - ii. Recommended modification of detail, use, application or for substitution of different product by same manufacturer as being more suitable for the performance requirements of the warranty.
 - 5) Statement that detailed installation instructions will be provided.
 - 6) Extent of job site technical services, consultants or instructors proposed, if any.
 - 7) Statement that warranty will be provided.
 - 8) Special provisions required to keep warranty in force.
- b. Requests for acceptance may be in the form of a letter including the above items and addressed to the subcontractor responsible for installation of the material, or may be according to a sample form of Material Proposal, provided by the Architect.
- c. Upon receipt of the manufacturer's proposal, the subcontractor shall add his own statement agreeing to comply with the manufacturer's requirements and warranting his own workmanship.
- d. The contractor shall submit letter of endorsement and copies of all documents, including letters of comment, to the Architect for approval. In the event that the request for approval recommends a change in the work, modification of

detail, or substitution of material, the contractor shall indicate his concurrence with the change as being within the scope of the contract or indicate the change in the Contract Sum for making such change, or state his objections to the change.

I.7 AIR POLLUTION CONTROL

- I.7.1 Request for approval of equipment, which may generate air pollutants, shall be accompanied by certification of compliance with approvals from all State and Local Air Pollution Control Authorities having jurisdiction.
- I.7.2 Request shall state that manufacturer has provided all information and complied with all requirements of the above agencies including requirements for in place monitoring and measurements.

I.8 INSPECTION AND TESTING

- I.8.1 In accordance with Sections of this Division applying to Laboratory Tests and Inspections, the Owner has the option to employ independent inspectors for certain portions of the Work and to have materials tested by an Independent Testing Laboratory.
- I.8.2 In addition to necessary samples of materials, manufacturer shall provide information and data required by the laboratories and inspectors for the proper performance of their work.
- I.8.3 Where certification by Independent Testing Laboratory is required to demonstrate compliance with a specified standard (ASTM, ANSI or similar), Laboratory Reports shall be dated not more than two years prior to submittal and shall refer to the issue of said standard current as of the issue date of the Contract Documents. Later issue or similar standards superseding the standards will be accepted subject approval by the Architect.

END OF SECTION

I700 PROJECT CLOSEOUT**I.1 DESCRIPTION OF REQUIREMENTS**

I.1.1 DEFINITIONS: Project closeout is the term used to describe certain collective project requirements, indicating completion of the Work that are to be fulfilled near the end of the Contract time in preparations for final acceptance and occupancy of the Work by the Owner, as well as final payment to each Trade Contractor and the normal termination of the Contract.

- a. Specific requirements for individual units of work are included in the appropriate sections in Divisions 2 through 42.

I.2 PREREQUISITES FOR SUBSTANTIAL COMPLETION

I.2.1 GENERAL: Complete the following before requesting the Construction Manager to coordinate inspections for certification of substantial completion, either for the entire Work or for portions of the Work. List known exceptions in the request.

- a. In the progress payment request that coincides with, the date substantial completion is claimed, show either 100% completion for the portion of the Work claimed as "substantially complete", or list incomplete items, the value of incomplete work, and reasons for the Work being incomplete.
- b. Include supporting documentation for completion as indicated in these contract documents.
- c. Advise Construction Manager of pending insurance change-over requirements.
- d. Submit special warranties, workmanship/maintenance bonds, maintenance agreements, final certifications, and similar documents.
- e. Obtain and submit releases enabling the Owner's full, unrestricted use of the Work and access to services and utilities. Where required, include occupancy permits, operating certificates and similar releases.
- f. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar final record information.
- g. Deliver tools, spare parts, extra stocks of material and similar physical items to Construction Manager.
- h. Make the final change-over of locks and transmit keys to the Construction Manager. Advise the Construction Manager's personnel of the change over in security provisions.
- i. Complete start up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities and services from the project site, along with construction tools and facilities, mockups, and similar elements.
- j. Complete final cleaning up requirements, including touch-up painting of marred surfaces.
- k. Touch-up and otherwise repair and restore marred exposed finishes.
- l. Submit a statement showing an accounting of change-over requirements.

I.2.2 INSPECTION PROCEDURES: Upon receipt of the Trade Contractor's request for inspection, the Architect/Engineer will either proceed with inspection or advise the Construction Manager of unfilled prerequisites.

- a. Following the initial inspection, the Architect/Engineer will either prepare the certificate of substantial completion, or will advise the Construction Manager of work which must be performed before the certificate will be issued. The Architect/Engineer will repeat the inspection when requested and when assured

- that the Work has been substantially completed.
- b. Results of the completed inspection will form the initial "punchlist" for final acceptance.

I.3 PREREQUISITES FOR FINAL ACCEPTANCE

I.3.1 GENERAL: Complete the following before requesting the Architect / Engineer's final inspection for certification of final acceptance, and final payment as required by the General Conditions. List known exceptions, if any, in the request.

- a. Submit the final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
- b. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
- c. Submit a certified copy of the Architect/Engineer's final punchlist of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and has been endorsed and dated by the Architect/Engineer.
- d. Submit consent of surety.
- e. Submit a final liquidated damages settlement statement, acceptable to the Owner where applicable.
- f. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

I.3.2 REINSPECTION PROCEDURE: The Architect/Engineer will reinspect the Work upon receipt of the Construction Manager's notice that the work, including punchlist items resulting from earlier inspections, has been completed, except for these items whose completion has been delayed because of circumstances that are acceptable to the Architect/Engineer.

- a. Upon completion of reinspection, the Architect/Engineer will either prepare a certificate of final acceptance, or will advise the Construction Manager of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance.
- b. If necessary, the reinspection procedure will be repeated.

I.4 RECORD DOCUMENT SUBMITTALS

I.4.1 GENERAL: Specific requirements for record documents are indicated in the individual sections of these specifications. Other requirements are indicated in the General Conditions. General submittal requirements are indicated in the various "submittals" sections.

- a. Do not use record documents for construction purposes; protect from deterioration and loss provide access to record documents for the Architect/Engineer's reference during normal working hours.

I.4.2 Record Drawings: Maintain a record set contract drawings and shop drawings in a clean, undamaged condition. Mark up the set of record documents to show the actual installation where the installed work varies substantially from the work as originally shown. Mark whichever drawing is most capable of showing the actual "field" condition fully and accurately; however, where shop drawings are used for mark up, record a cross reference at the corresponding location on the working drawings. Give particular attention to concealed work that would be difficult to measure and record at a later

date.

- a. Mark record sets with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.
- b. Mark up new information, which is known to be important to the Owner, but for some reason was not shown on either contract drawings or shop drawings.
- c. Note related change order numbers where applicable.
- d. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
- e. At the completion of the Trade Contractor's work, submit record sets of drawings to the Construction Manager showing all record drawing conditions.

I.4.3 RECORD SPECIFICATIONS: Maintain one complete copy of the Project Manual, including specifications addenda, bulletins, and one copy of other written construction documents such as change orders and similar modifications issued in printed form during construction. Mark these documents to show substantial variations in the actual work performed in comparison with the text of the specifications and modifications as issued. Give particular attention to substitutions, selection of options and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data, where applicable.

- a. Upon completion of the Work, submit record specifications to the Construction Manager for the Owner's records.

I.4.4 RECORD PRODUCT DATA: Maintain one copy of each product data submittal. Mark these documents to show significant variations in the actual Work performed in comparison with the submitted information. Give particular attention to concealed products and portions of the Work, which cannot otherwise be readily discerned at a later date by direct observation. Note related change orders and markup of record drawings and specifications.

- a. Upon completion of mark up, submit complete sets of record product data to the Construction Manager for the Owner's records.

I.4.5 MISCELLANEOUS RECORD SUBMITTALS: Refer to other sections of the specifications for requirements of miscellaneous record keeping and submittals in connection with the actual performance of the Work. Immediately prior to the date or dates of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to Construction Manager for the Owner's records.

I.4.6 MISCELLANEOUS MANUALS; Organize operating and maintenance data into suitable sets of manageable size. Bind data into individual binders properly identified and indexed. Unless identified otherwise, bind each set of data in a heavy duty 3 ring vinyl covered binder, with pocket folders for folded sheet information. Mark the appropriate identification on both front and spine of each binder. 3-ring vinyl covered binder, with pocket folders for folded sheet information. Mark the appropriate identification on both front and spine of each binder.

- a. Include the following types of information in operation and maintenance manuals:
 - Emergency instructions.
 - Spare parts listing.
 - Copies of warranties.

- Wiring diagrams.
- Recommended "turn around" cycles.
- Inspection procedures.
- Shop drawings and product data.

2.1 EXECUTION

2.2 CLOSEOUT PROCEDURES

2.2.1 **GENERAL OPERATING AND MAINTENANCE INSTRUCTIONS:** Arrange for each installer of operating equipment and other work that requires regular or continuing maintenance, to meet at the site with the Owner's personnel to provide necessary basic instruction in the proper operation and maintenance of the entire Work. Where installers are not experienced in the required procedures, include instruction by the manufacturer's representatives.

- a. As part of this instruction provide a detailed review of the following items:
 - Maintenance manuals.
 - Record documents.
 - Spare parts and materials.
 - Tools.
 - Lubricants.
 - Fuels.
 - Identification systems.
 - Control sequences.
 - Hazards.
 - Cleaning.
 - Warranties, bonds, maintenance agreements and similar continuing commitments.
- b. As part of this instruction for operating equipment demonstrate the following procedures:
 - Start-up.
 - Shut down.
 - Noise and vibration adjustments.

2.3 FINAL CLEANING

2.3.1 **GENERAL:** Special cleaning requirements for specific units of Work are included in the appropriate sections of the specifications. General Cleaning during the regular progress of the Work is required by the General Conditions and Subcontract Agreements.

2.3.2 **CLEANING:** Provide final cleaning of the Work at the time indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.

Complete the following cleaning operations before requesting the Architect /Engineer's inspection for certification of substantial completion:

- a. Remove labels which are not required as permanent labels.
- b. Clean transparent materials, including mirrors and glass in doors and windows, to a polished condition. Remove substances, which are noticeable as vision obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
- c. Clean exposed exterior and interior hard surfaced finishes to a dust free

- condition, free of dust, stains, films and similar noticeable distracting substances. Leave concrete floors broom clean. Vacuum carpeted surfaces.
- d. Wipe surfaces of mechanical and electrical equipment clean. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - e. Clean the project site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas to a broom clean condition; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even textured surface.
- 2.3.3 **REMOVAL OF PROTECTION:** Remove temporary protection devices and facilities, which were installed during the course of the work to protect previously, completed work during remainder of the construction period.
- 2.3.4 **COMPLIANCE:** Comply with safety standards and governing regulations for cleaning operation. Do not burn waste materials at site. Do not bury debris or excess materials on Owner's property. Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
- a. Where extra materials of value remaining after completion of associated work have become Owner's property, dispose of these materials to the Owner's best advantage as directed.

END OF SECTION

01740 WARRANTIES

PART I - GENERAL

I.1 SUMMARY

- I.1.1 Specified Herein: Warranties and continuing services required to be provided by manufacturers of materials and systems where required for proper performance.
- I.1.2 The word "Guarantee" when appearing in any Contract Document or construction correspondence shall be defined as warranty in accordance with Article 3.5 of the General Conditions.

I.2 SUBMITTALS

- I.2.1 Submit warranties in accordance with Article 3.5 of the General Conditions as modified by Supplementary Conditions and additional requirements specified under the individual Trade Sections.
- I.2.2 Required types of warranties and additional services are scheduled and listed in the Trade Sections.
- I.2.3 In all cases where "Special Warranties" or "Service Contracts" are required, the request for approval of materials will be accepted by the Owner and the Architect on the understanding that manufacturer agrees to provide the specified warranty or other service unless stated otherwise in the request.
- I.2.4 The Owner will not be bound to accept any limitations or variations from the specified warranty, which were not filed with the request for acceptance and accepted prior to purchase of materials.
- I.2.5 Warranties shall be submitted prior to request for payment for 100% completion in each case, shall acknowledge the responsibilities defined under Supplementary Conditions and shall include:
 - a. Manufacturer's warranty that all materials comply with its published standards, comply with the requirements of the Specifications and where specified, are adequate for the proposed use.
 - b. Subcontractor's warranty that all workmanship complies with the requirements of the Specifications and of the manufacturer.
 - c. Contractor's warranty covering the entire work and accepting responsibility for all limitations imposed by the manufacturer or subcontractor except where such limitations have been previously accepted by the Architect.
 - d. Certification and verification of previously submitted information including statement of all limitations, required maintenance and similar conditions of the warranty.

I.3 STANDARD WARRANTIES

- I.3.1 A standard warranty is a warranty whose terms are essentially the same as normally

offered by the manufacturer of standard with the industry.

- I.3.2 General Conditions require that standard warranties apply as a minimum requirement notwithstanding the fact that submittal of a copy of the warranty is not required.
- I.3.3 Unless otherwise specified, a standard warranty shall be for a period on one (1) year from Date of Substantial Completion.
- I.3.4 Contractor shall obtain and furnish to the Owner from each manufacturer of materials or equipment incorporated into the Work a warranty at least as favorable to Owner as that customarily given by such manufacturer to others. Contractor shall inform itself as to any conditions precedent to the effectiveness of each manufacturer's warranty and comply with all such conditions (or obtain waivers thereof from the manufacturer) so that such warranty shall be fully effective. If any event occurs which might invalidate any manufacturer's warranty, contractor shall promptly notify the Owner and the Architect.
- I.3.5 All warranty periods shall commence on the Date of Substantial Completion except that, if it is discovered after said date that certain work or materials were not in fact in conformance with the requirements of the Contract Documents, the applicable warranty period shall re-commence from the completion of the repair or replacement of such Work to make it so conform.
- I.3.6 The fact that a manufacturer's warranty differs in its terms from those of the contractor or any subcontractor, the acceptance by the Owner of any warranty of a manufacturer or subcontractor, or the fact that the Owner has claimed initially on such warranty, shall not in any way release contractor from his warranty obligations under the contract.

I.4 SPECIAL WARRANTIES

- I.4.1 A special warranty is one whose terms, in addition to the standard coverage offered by the manufacturer, contain other special provisions, including:
 - a. Acknowledgment of specified list of items, which shall be specifically noted as being covered by the warranty.
 - b. Acknowledgment of specific conditions for use or exposure.
 - c. Extension of warranty to waive standard exceptions or to extend limits including time.
 - d. Requirements for specific performance by other trades including method of separation and protection from, or assurance of compatibility with, adjacent materials.
 - e. Assemblies and systems, which may include products of other manufacturers.
 - f. Conditions where certain performance criteria are specified and must be either acknowledged or actual limits are required to be determined by performance testing subject to Owner's review and acceptance.
 - g. Conditions where manufacturer's continuing involvement such as maintenance or advisory service is required.

I.4.2 Maintenance Service During Warranty Period:

- a. Reference to routine maintenance required to be performed by the Owner

during the warranty period shall be listed in the original submittal of proposed warranty.

- b. All other administration and maintenance service required during the warranty period, including installation of items repaired or replaced under the terms of the warranty shall be included in the original Contract.

I.5 SERVICE CONTRACTS

- I.5.1 Required types of Service Contract Proposals are scheduled under Schedule or Required Submittals and are listed in the Trade Sections.
- I.5.2 Where specified, the subcontractor or manufacturer originally supplying services and skills required for proper maintenance and agreeing to maintain availability of replacement parts and materials.
- I.5.3 The Service Contract is in addition to, and independent of, the Warranty and shall not act to either extend the Warranty or to reduce the contractor's responsibilities thereunder.
- I.5.4 Unless otherwise specified or agreed, Service Contracts shall be written for a period of five (5) years starting with the termination of similar services included under the warranty and shall include cancellation privilege annually when exercised at least 60 days prior to anniversary date.
- I.5.5 The contractor shall:
 - a. Prior to submittal of manufacturer of subcontractor for approval, verify that specified service is available and will be offered.
 - b. Secure from the manufacturer of subcontractor a bona fide proposal to perform the specified services.
 - c. When so directed, assist the Architect in obtaining proposals for the performance of the specified services by other competent parties.

I.6 ADVISORY AND INSPECTION SERVICE

- I.6.1 Advisory and Inspection Service consists of:
 - a. Periodic inspection on a regular scheduled basis. Include schedule of proposed inspections of the agreement.
 - b. All necessary information, including special training, where required to adequately instruct Owner's maintenance personnel in preventive maintenance repairs and treatments. If such maintenance work is recommended:
 - 1) Obtain or submit price quotations for recommended work.
 - 2) When so instructed by the Owner, make all necessary arrangements for the performance of the Work.

1.6.2 Parts and Materials Agreement:

- a. Where standard commercially available parts of materials are suitable for maintenance or repair, inform Owner concerning trade name or description and location where they may be obtained.
- b. Where parts or materials are not readily available maintain replacement stocks at a location as required to prevent undue delay in repairs or loss of use of equipment pending delivery.

1.7 MAINTENANCE SERVICE

1.7.1 A Maintenance Service Contract is an agreement that in addition to Advisory and Inspection Service, the Manufacturer will provide, or otherwise make available through his agent, a regular maintenance service program scheduled during normal working hours.

1.7.2 Proposals shall schedule proposed times for servicing and list the services to be performed.

1.7.3 Maintenance service of equipment shall be performed solely by the original Equipment Contractor and shall not be assigned or transferred to any agent or subcontractor without the approval of the Owner.

1.7.4 Repairs:

- a. Permanent repairs shall be started within seven (7) days after notification by the Owner.
- b. In the event that emergency and permanent repairs are not started within the specified time limits, or if the work is stopped without the Owner's consent, the Owner shall have the same options to have repairs performed by others as specified under Warranties without invalidating this agreement.

1.7.5 Equipment maintenance shall include systematic examinations, and adjustments and lubrication of all equipment. The Equipment Maintenance Contractor shall repair and replace electrical and mechanical parts whenever required using only genuine standard parts recommended or produced by the manufacturer of the equipment.

1.7.6 Addition work when so directed by the Owner shall be included under the work of the Maintenance Contract and the Contractor shall be reimbursed at the current prevailing rate for the cost of materials, labor and services. Such additional work shall include:

- a. Repairs or replacement required as a result of negligence, abuse, or other actions contrary to the Equipment Contractor's operating instructions.
- b. Improvement or additional equipment required by the Owner, Insurance Companies, or Governmental Authorities.
- c. Except for emergency service, the additional cost for overtime work based on the difference between regular and overtime labor when the Owner requests

that such work be performed outside of regular working and so authorized in writing.

- I.7.7 Additional requirements for specific maintenance contracts are specified in the various Trade Sections.

I.8 EMERGENCY CALL-BACK SERVICE

- I.8.1 Emergency Call-Back Service is an agreement to provide rescue and repair service on an emergency basis where required for the protection of life and property.
- I.8.2 Owner's agreement to permit manufacturers to assign agreement to an agent does not relieve manufacturer of responsibility to verify that service remains available for the specified time.
- I.8.3 Agreement shall remain in effect for the lifetime of all Warranties, Service Contracts and for such longer time as may be specified or agreed.
- I.8.4 Service shall be available on a 24 hour, 7-day basis and shall be performed within the following time limit after notification of emergency unless otherwise specified. Maintain emergency telephone number on file with the Owner for nights and weekends.

I.9 CERTIFICATION

- I.9.1 Product Certification: See Division I, Section titled "Material and Equipment".
- I.9.2 Workmanship Certification is a statement by the applicator or installer that all materials and workmanship in connection with the system have been furnished and installed in complete conformance with Contract Documents, and with the manufacturer's specifications and requirements for the particular type of use specified.
- I.9.3 A product certification where specified as a requirement shall be in a form similar to the following:

"We, the (Manufacturing Company), certify that the complete system as detailed and specified can be installed and will perform in accordance with the requirements of the specifications and the ASTM Standards referenced therein for the guarantee period of one year or such longer period as may be negotiated between the Owner and the (Manufacturing Company).

Upon completion of the Project we will inspect the work and certify to the Owner that the system as installed is in accordance with the Manufacturer's requirements or indicated in writing what remedial action is necessary in order that it does so conform."

END OF SECTION

017419 CONSTRUCTION WASTE MANAGEMENT

PART I - GENERAL

I.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specification Sections, apply to this Section.

I.2 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:

- Salvaging non-hazardous demolition and construction waste.
 - Recycling non-hazardous demolition and construction waste.
 - Disposing of non-hazardous demolition and construction waste.

- B. Related Sections include the following:

- Division I Section "Summary of Multiple Contracts" for coordination of responsibilities for waste management.

- Division I Section "Temporary Facilities and Controls" for environmental-protection measures during construction, and location of waste containers at Project site.

- Division 02 Section "Structure Demolition" for disposition of waste resulting from demolition of buildings, structures, and site improvements[, and for disposition of hazardous waste].

- Division 02 Section "Selective Structure Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements.

- Division 04 Section "Unit Masonry" for disposal requirements for masonry waste.

- Division 04 Section "Stone Masonry" for disposal requirements for excess stone and stone waste.

- Division 31 Section "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

I.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

I.4 PERFORMANCE GOALS

- A. General: Achieve end-of-Project rates for salvage/recycling of 75 percent by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials
- B. Salvage/Recycle Goals: Owner's goal is to salvage and recycle as much non-hazardous demolition and construction waste as possible including the following materials:

2. Demolition Waste:

- a. Asphaltic concrete paving.
- b. Concrete.
- c. Concrete reinforcing steel.
- d. Brick.
- e. Concrete masonry units.
- f. Wood studs.
- g. Wood joists.
- h. Plywood and oriented strand board.
- i. Wood paneling.
- j. Wood trim.
- k. Structural and miscellaneous steel.
- l. Rough hardware.
- m. Roofing.

- n. Insulation.
 - o. Doors and frames.
 - p. Door hardware.
 - q. Windows.
 - r. Glazing.
 - s. Metal studs.
 - t. Gypsum board.
 - u. Acoustical tile and panels.
 - v. Carpet.
 - w. Carpet pad.
 - x. Demountable partitions.
 - y. Equipment.
 - z. Cabinets.
 - aa. Plumbing fixtures.
 - bb. Piping.
 - cc. Supports and hangers.
 - dd. Valves.
 - ee. Sprinklers.
 - ff. Mechanical equipment.
 - gg. Refrigerants.
 - hh. Electrical conduit.
 - ii. Copper wiring.
 - jj. Lighting fixtures.
 - kk. Lamps.
 - ll. Ballasts.
 - mm. Electrical devices.
 - nn. Switchgear and panel boards.
 - oo. Transformers.
2. Construction Waste:
- a. Masonry and CMU.
 - b. Lumber.
 - c. Wood sheet materials.
 - d. Wood trim.
 - e. Metals.
 - f. Roofing.
 - g. Insulation.
 - h. Carpet and pad.
 - i. Gypsum board.
 - j. Piping.
 - k. Electrical conduit.
 - l. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
 - 1) Paper.
 - 2) Cardboard.
 - 3) Boxes.
 - 4) Plastic sheet and film.

- 5) Polystyrene packaging.
- 6) Wood crates.
- 7) Plastic pails.

I.5 SUBMITTALS

- A. Comply with Section 017419.1 Waste Management Project Specific Plan or submit an equally comprehensive Waste Management Plan.
- B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit three copies of report. Include the following information:
 - 2. Material category.
 - 2. Generation point of waste.
 - 2. Total quantity of waste in tons.
 - 2. Quantity of waste salvaged, actual in tons.
 - 2. Quantity of waste recycled, actual in tons.
 - 2. Total quantity of waste recovered (salvaged plus recycled) in tons.
 - 2. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Qualification Data: For Waste Management Coordinator and refrigerant recovery technician.
- H. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

I.6 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, with a record of successful waste management coordination of projects with similar requirements, that

employs a LEED-Accredited Professional, certified by the USGBC, as waste management coordinator.

- B. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- C. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Waste Management Conference: Conduct conference at Project site to comply with requirements in Division I Section "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:

Review and discuss waste management plan including responsibilities of Waste Management Coordinator.

Review requirements for documenting quantities of each type of waste and its disposition.

Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.

Review procedures for periodic waste collection and transportation to recycling and disposal facilities.

Review waste management requirements for each trade.

I.7 WASTE MANAGEMENT PLAN

- A. General: Comply with Section 017419.1 Waste Management Project Specific Plan in the following section, or submit an equally comprehensive Waste Management Plan.
- B. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:

Total quantity of waste.

Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.

Total cost of disposal (with no waste management).

Revenue from salvaged materials.

Revenue from recycled materials.

Savings in hauling and tipping fees by donating materials.

Savings in hauling and tipping fees that are avoided.

Handling and transportation costs. Include cost of collection containers for each type of waste.

Net additional cost or net savings from waste management plan

I.8 PLAN IMPLEMENTATION

- A. General: Implement waste management plan as approved by Construction Manager. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
 - 2. Comply with Division I Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 - 2. Distribute waste management plan to everyone concerned within three days of submittal return.
 - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 2. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 - 2. Comply with Division I Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

I.9 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work:
 - 2. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 2. Store items in a secure area until installation.
 - 2. Protect items from damage during transport and storage.
 - 2. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Salvaged Items for Owner's Use:
 - 2. Clean salvaged items.

Pack or crate items after cleaning. Identify contents of containers.
Store items in a secure area until delivery to Owner.
Transport items to Owner's storage area designated by Owner.
Protect items from damage during transport and storage.

- D. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- E. Plumbing Fixtures: Separate by type and size.
- F. Lighting Fixtures: Separate lamps by type and protect from breakage.
- G. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

I.10 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.

Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.

- a. Inspect containers and bins for contamination and remove contaminated materials if found.

Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

Stockpile materials away from construction area. Do not store within drip line of remaining trees.

Store components off the ground and protect from the weather.

Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

I.11 RECYCLING DEMOLITION WASTE

- A. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.

Clean and stack undamaged, whole masonry units on wood pallets.

- B. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

- C. Metals: Separate metals by type.

Structural Steel: Stack members according to size, type of member, and length. Remove and dispose of bolts, nuts, washers, and other rough hardware.

- D. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.

- E. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.

Separate suspension system, trim, and other metals from panels and tile and sort with other metals.

- F. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.

Store clean, dry carpet and pad in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.

- L. Carpet Tile: Remove debris, trash, and adhesive.

Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.

- M. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.

- G. Conduit: Reduce conduit to straight lengths and store by type and size.

I.12 RECYCLING CONSTRUCTION WASTE

- A. Packaging:

Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.

Polystyrene Packaging: Separate and bag materials.

Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.

Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

- B. Wood Materials:

Clean Cut-Offs of Lumber: Grind or chip into small pieces.

Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

- a. Comply with requirements in Division 32 Section "Exterior Plants." for use of clean sawdust as organic mulch.

- C. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.

Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

I.13 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

- B. Burning: Do not burn waste materials.
- C. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- D. Disposal: Transport waste materials and dispose of at designated spoil areas on Owner's property.
- E. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION

Waste Management Plan

The Construction Manager has hired Knight Transfer Services, Inc. to implement the Waste/Recycling Plan for this project. All reports will be generated and maintained through Knight Transfer Services, Inc.

Project: Ingham ISD CACC Interior Renovation

Contact: Sam Ruegsegger – Ingham ISD, Purchasing

Date: 2.19.2013

1. Overview

1.1 General

The owner has established that this project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination or other factors shall be employed. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.

1.2 Purpose of the Waste Management Plan

The purpose of this waste management plan is to:

1. Provide direction for the Construction Manager and subcontractors with regard to the handling of waste materials throughout the construction project.
2. Identify licensed haulers and processors of recyclables and markets for salvaged materials.

1.3 Goals of the Waste Management Plan

The owner has specified that at least **75%** of waste materials from this project be diverted from landfill disposal. This percentage is to be determined by weight.

2. Application of the Waste Management Plan

The strategies and procedures detailed in this plan shall be applied to the following waste products, should they be generated during construction:

- Clean dimensional wood, palette wood
- Plywood, OSB and particle board
- Engineered wood products
- Concrete
- General Unsorted Trash

- Bricks
- Concrete masonry units
- Asphaltic concrete
- Fiber cement products (shingles, panels, siding)
- Metals
- Asphalt roofing shingles
- Cardboard, paper and packing
- Unpainted gypsum drywall

3. Waste Materials Handling and Disposal

3.1 Approved Disposal Methods

Waste Materials	Where to Dispose
Dimensional lumber	Spurt Industries – 10200 Pease Ave, Byron Center, MI Michigan Wood Fibers – 9426 Henry Ct., Borculo, MI Mid Michigan Recycling – 8840 Davis Hwy, Lansing, MI
Plywood, OSB	Spurt Industries – 10200 Pease Ave, Byron Center, MI Michigan Wood Fibers – 9426 Henry Ct., Borculo, MI Mid Michigan Recycling – 8840 Davis Hwy, Lansing, MI
Engineered wood	Spurt Industries – 10200 Pease Ave, Byron Center, MI Michigan Wood Fibers – 9426 Henry Ct., Borculo, MI Mid Michigan Recycling – 8840 Davis Hwy, Lansing, MI
Concrete	Parker Excavating & Gravel Recycling – 68 th St., Coopersville, MI Parker Excavating & Gravel Recycling – Alpine & 6 Mile, Walker, MI Brewer Sand & Gravel Shop, 245 Charles St., Holland, MI Clark Foundation Company – 6851 Millett Hwy, Lansing, MI
Bricks	Parker Excavating & Gravel Recycling – 68 th St., Coopersville, MI Parker Excavating & Gravel Recycling – Alpine & 6 Mile, Walker, MI Brewer Sand & Gravel Shop, 245 Charles St., Holland, MI Clark Foundation Company – 6851 Millett Hwy, Lansing, MI
CMUs	Parker Excavating & Gravel Recycling – 68 th St., Coopersville, MI Parker Excavating & Gravel Recycling – Alpine & 6 Mile, Walker, MI Brewer Sand & Gravel Shop, 245 Charles St., Holland, MI

	Clark Foundation Company – 6851 Millett Hwy, Lansing, MI
Asphaltic Concrete	Parker Excavating & Gravel Recycling – 68 th St., Coopersville, MI Parker Excavating & Gravel Recycling – Alpine/6 Mile, Walker, MI Brewer Sand & Gravel Shop, 245 Charles St., Holland, MI Clark Foundation Company – 6851 Millett Hwy, Lansing, MI
Cardboard, paper	Louis Padnos Iron & Metal Co. Grandville Recycling – 3485 Viaduct SW, Grandville, MI
Fiber cement	Parker Excavating & Gravel Recycling – 68 th St., Coopersville, MI Parker Excavating & Gravel Recycling – Alpine & 6 Mile, Walker, MI Brewer Sand & Gravel Shop, 245 Charles St., Holland, MI Clark Foundation Company – 6851 Millett Hwy, Lansing, MI
Asphalt Roofing	Parker Excavating & Gravel Recycling – 68 th St., Coopersville, MI Parker Excavating & Gravel Recycling – Alpine & 6 Mile, Walker, MI Brewer Sand & Gravel Shop, 245 Charles St., Holland, MI Clark Foundation Company – 6851 Millett Hwy, Lansing, MI
Metals	Louis Padnos Iron & Metal Co. – 2001 Turner Ave. NW, Grand Rapids, MI
Gypsum wall board	Spurt Industries – 10200 Pease Ave, Byron Center, MI
General Unsorted Trash	Ottawa County Farms Landfill – 15550 68 th St., Coopersville, MI Autumn Hills Landfill – 700 56 th Ave., Zeeland, MI

3.2 Handling Procedures

The Contractor shall abide by the following special procedures:

Wood: Usable wood shall be stacked for reuse or donation. All other clean wood shall be stored in a container for recycling. Wood concrete forms are included in this instruction.

Concrete: The Contractor shall contact the chosen concrete recycler for instructions per rebar and other reinforcement.

All Reusable Materials: Clean materials in good condition shall be separated from those to be recycled and stored in such a way that will preserve their condition for donation.

4. Job Site Training and Plan Implementation

4.1 Plan Distribution and Instruction

The Contractor shall distribute copies of the Waste Management Plan to the Construction Manager and each Subcontractor. One copy of the plan shall be posted on the jobsite at all times. The Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse and return methods to be used by all parties at the appropriate stages of the project.

4.2 Storage of Materials

All materials stored on-site shall be protected from inclement weather, breakage, contamination, etc. to minimize the amount of unnecessary waste generated during construction.

4.3 Separation Facilities

The Contractor shall create and clearly label a specific area to facilitate separation of materials for potential recycling, salvage, reuse and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials.

4.4 Hazardous Wastes

Hazardous wastes shall be separated, stored and disposed of according to local regulations.

5. Submittals

5.1 Progress Reporting

The Contractor shall submit a copy of the *Waste Management Plan Progress Report* with each Application for Progress Payment. Failure to submit the Progress Report shall render the Application for Payment incomplete and delay progress payment.