

The Construction Specifications are divided into Divisions and Sections based on the Construction Specifications Institute (CSI) "Master Format."

Each Section describes a portion of the work. Each Section Number includes the Division Number and a three digit identifying number.

In Division 1, various sections are grouped under a title Section, to aid in compiling and producing the Project Manual.

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END OF SECTION

01 010 WORK DESCRIPTION

WORK OF THE CONTRACT

THE CONDITIONS OF THE CONTRACT and Division 1, General Requirements, shall govern the Work of the Contract, including without limitation, all portions of the work as described under the various Specification Sections and on the Drawings.

THE WORK includes:

1. REMOVAL of existing greenhouse structure
2. REMOVAL of existing masonry base wall
3. REMOVAL of existing interior mechanical, plumbing, and electrical systems.
4. INSTALLATION of new masonry base wall, flashings, etc.
5. INSTALLATION of new greenhouse structure, flashings, trim, etc. for a complete installation.
6. INSTALLATION of new interior water, heating, electrical, and other systems as designated.

LOCATED: Trombly Elementary School, 820 Beaconsfield, Grosse Pointe Park, MI 48230

CONTRACT TYPE

CONSTRUCT the Work under a fixed stipulated sum price contract.

WORK BY OTHERS

WORK on the Project which will be executed during the work of this Contract or after its completion, and which is excluded from this Contract, is as follows

1. ENVIRONMENTAL REMOVALS and disposals of ACM, lead paint, and Air Quality Monitoring and Testing.
2. REMOVAL of existing greenhouse protective grating.
3. REMOVAL of existing greenhouse framing / glass.

THE CONTRACTOR shall cooperate with the Owner's coordination of the separate contract work, unless otherwise indicated under Contract Type. The Contractor shall coordinate the installation of certain Separate Contract work into the building construction where explicitly required under any Specification Section, or indicated on the drawings.

OWNER FURNISHED ITEMS

THE FOLLOWING ITEMS will be furnished by the Owner to the Contractor for installation by the Contractor:

1. NONE

THE OWNER shall be responsible for scheduling and delivery (based on dates supplied by the Contractor) and material guarantee.

THE CONTRACTOR shall be responsible for unloading, storage, handling, installation, finishing, and labor guarantee.

CONTRACTOR'S USE OF THE PREMISES

THE CONTRACTOR shall have complete use of the premises for execution of the Work.

COORDINATE the use of the premises under any special directions of the Owner and Architect.

1. PARKING IS LIMITED TO THE SITE; do not park on adjacent properties.
2. OBTAIN AND PAY for the use of additional storage or work areas needed for operations.

01 020 ALLOWANCES

ALLOWANCES are fixed amounts which are to be included in the Base Proposal Amount to provide funds for purchase of products and service which cannot be determined or specified prior to receipt of bids.

NOT INCLUDED IN THE ALLOWANCE are the following items which should be included in the Base Proposal Amount:

1. HANDLING at the project site including uncrating and storage.
2. PROTECTION from the elements and damage.
3. LABOR for installing and finishing.
4. OTHER expenses as required for a complete installation.

5. PERMITS and fees.
6. CONTRACTOR'S Overhead and Profit.

AMOUNT

THE AMOUNT of each Cash Allowance is as follows:

1. NONE

COST ADJUSTMENT: Should the actual cost be more, or less, than the specified amount, the Contract Sum will be adjusted by Change Order. Based on actual cost plus (or minus) 10% for contractor OH&P on any add (or deduct) to the amount shown above.

01 031 GRADES, LINES AND LEVELS

PROVIDE and pay for field engineering services including:

1. SURVEY WORK required for the execution of the Project.
2. CIVIL, STRUCTURAL, or other professional engineering services, as required to execute the Contractor's construction methods.

SURVEY REFERENCE POINTS

LOCATE AND PROTECT CONTROL POINTS before starting site work, and preserve all permanent reference points during construction.

CONTRACTOR shall employ a registered professional engineer or registered land surveyor to layout the work and to be responsible for all lines, elevations, measurements for all site improvements executed under this contract. He shall exercise proper caution to verify figures on the drawings before laying out the work and will be responsible for any error resulting from failure to exercise such precaution.

1. MAKE NO CHANGES or relocations without prior written notice to the Architect.
2. REPORT TO THE ARCHITECT all reference points which are lost or destroyed, or which require relocation because of necessary changes in grades or locations.
3. REQUIRE THE SURVEYOR to replace Project control points which may be lost or destroyed, to conform to the original survey control points.

PROJECT SURVEY REQUIREMENTS

ESTABLISH at least two permanent bench marks on the site, at widely separated locations, accurate to 0.01 ft., referenced to data established by survey control points. Record the locations, with horizontal and vertical data, on the Project Record Documents. Preserve during construction.

ESTABLISH lines and levels, locate and lay out the following by instrumentation and similar appropriate means:

1. AT SITE IMPROVEMENTS, set stakes for grading, fill and topsoil placement, and locate utility slopes and invert elevations.
2. PROVIDE BATTER BOARDS for structures.
3. PROVIDE BUILDING FOUNDATION and column locations and floor levels.
4. PROVIDE CONTROLLING LINES and levels required for architectural, mechanical and electrical work. Provide paint-marked axis lines on the floor, and paint-marked partition runs, including corners, intersections and floor openings.

PERIODICALLY VERIFY layouts by the same methods. After completion of foundations, and structural erection, resurvey the site to determine the exact building location and dimensions, and elevations of the floor level at exterior doors and other openings at grade.

MAINTAIN a complete, accurate log of all control and survey work as it progresses.

01 051 PROJECT COORDINATION

THE CONTRACTOR shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for the proper execution and completion of the work.

THE 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.

WORK ITEMS shall be completed in proper sequence and in such order that no items of construction or installation will be injured by the delayed or premature application of another.

ALL WORK shall be installed in accordance with the manufacturer's specifications when not otherwise specified.

THIS SPECIFICATION anticipates first-class workmanship throughout the construction of the project. All labor shall be done by workmen qualified and competent to produce a quality product.

EXAMINATION

EXAMINE the work upon which your work depends. The application of your work or any part of it shall constitute acceptance of the work upon which your work or that part of it which has been applied depends.

BEFORE PERFORMING any work or ordering any materials, each trade shall verify all dimensions of any existing and new work and be responsible for their accuracy. Any differences found shall be submitted to the Architect 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.

EACH TRADE shall be responsible for the proper fit of his work to adjoining work and shall, without additional charge, correct any work that does not fit, or furnish new work. In cases where dimensions are governed by conditions already established or which will have been established prior to installation of work of this trade, they shall be verified in the field. In all cases he shall verify dimensions prior to fabricating or installing the work.

COOPERATION

COOPERATE with and coordinate other trades as required for the satisfactory and expeditious completion of the work. Take field dimensions relative to this work. Fabricate and erect work to suit field dimensions and field conditions. Provide all forms, templates, anchors, sleeves, inserts and accessories required to be fixed to or inserted in the work and set in place, or instruct the related trades as to their location. Pay the cost of extra work caused by, and make up time lost, as the result of failure to provide the necessary cooperation, information, or items to be fixed or built in, in adequate time.

APPORTIONMENT OF THE WORK

THE CONTRACTOR shall apportion the furnishing of materials, and performance of labor to the various trades in accordance with the local customs and jurisdictional practice prevailing in the project area. The arrangement of the specifications into Divisions and Sections is for convenience only, and shall not be construed as defining the limits of any subcontract.

01 070 CUTTING AND PATCHING

THE CONTRACTOR shall perform all cutting, fitting and patching as required to complete the Project.

SUBMIT A WRITTEN REQUEST to the Architect well before cutting or alteration work which affects the structural, weather or moisture resistant, fire-resistive integrity, safety, or appearance of the Project.

PREPARATION

INSPECT existing conditions and uncovered work. Report unsatisfactory or questionable conditions to the Architect in writing for direction. Do not proceed with the work until the Architect has provided further instructions.

EACH TRADE shall exercise forethought to see that ample openings and other provisions have been made in the work of other trades for the installation of their work. Cost due to defective, uncoordinated, or ill-timed work shall be borne by the party responsible.

CUTTING AND PATCHING

PROVIDE PROTECTIVE DEVICES as required. Prevent damage to other work, and provide proper surfaces for patching.

IN EXCAVATING AND BACKFILLING, prevent settlement or other damage. Pump water, as required, from excavations performed under this Section.

IN CUTTING OR PATCHING weather-exposed or moisture-resistant elements or finished surfaces which were fabricated or installed as part of the Work of the Contract, have the same fabricator or installer perform the cutting or patching. Execute cutting carefully, and remove as little as possible.

DO NOT CUT reinforcing steel or structural steel.

CUTTING IN THE WORK of any trade shall be done only with the permission of and according to the instructions of the trade whose work is to be cut. Unless specifically designated or arranged otherwise, any cutting and the necessary patching shall be the responsibility of the trade whose equipment or material is being installed.

WHERE EXISTING construction, such as floors, walls, roof or roofing must be cut to remove, relocate or add piping or equipment, restore to original condition using workmen skilled in respective trades.

MECHANICAL AND ELECTRICAL Work Contractors shall furnish and install sleeves in all locations where piping and conduit passes through walls, floors or ceilings.

EXISTING WORK which is to remain, but becomes damaged through execution of work under this Contract shall be restored by this Contractor, at his expense, and to the satisfaction of the Owner and Architect.

01 080 APPLICABLE CODES

THE WORK shall conform to applicable laws, codes and ordinances.

1. MICHIGAN BUILDING CODE: 2012 Edition
2. MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS: 2012 Edition
3. NATIONAL ELECTRICAL CODE: 2014 Edition, with Michigan Part 8 rules
4. MICHIGAN MECHANICAL CODE: 2012 Edition
5. MICHIGAN PLUMBING CODE: 2012 Edition
6. ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES: ANSI A117.1 – 2009
7. MICHIGAN BARRIER FREE DESIGN ACT
8. FEDERAL ADA STANDARDS for accessible design: Current Edition
9. LIFE SAFETY CODE: 1997 Edition
10. MICHIGAN SCHOOL FIRE SAFETY RULES: 1999 Edition

THE CONTRACTOR and all subcontractors shall observe all ordinances, laws, and other regulations of all authorities having jurisdiction over the construction operations, particularly including those applying to noise, timing of deliveries, hours of operation, and Soil Erosion and Sedimentation Control during operations.

01 100 ALTERNATES

REQUIREMENTS

BIDDERS SHALL REVIEW all alternates to determine their applicability to the work included in each section of the Specifications.

EACH PRICE SHALL INCLUDE all costs of labor and material, and of incorporating the proposed materials and/or workmanship into the work, including the costs of such revisions to adjacent construction as may be needed to properly accept the Alternate, all costs of coordination, supervision, overhead and profit, insurance, taxes, permits and fees, and all miscellaneous expenses connected with the change.

ALTERNATE PRICES generally are stated as "Add To" or "Deduct From" amounts referenced to the Base Proposal Amount.

DESCRIPTION OF ALTERNATES

ALTERNATE #1: ELECTRIC ROOF SUPPORTED HEATER

State the amount to be ADDED TO the Base Proposal Amount to install a supplemental roof supported heater and controls. Refer to the drawings and specifications for further information.

ALTERNATE #2: EVAPORATIVE COOLER

State the amount to be ADDED TO the Base Proposal Amount to install an evaporative cooling system with associated thermostat. Refer to the drawings and specifications for further information.

ALTERNATE #3: HUMIDIFICATION SYSTEM

State the amount to be ADDED TO the Base Proposal Amount to install an oscillating turbo fogger with humidistat controls. Refer to the drawings and specifications for further information.

ALTERNATE #4: IRRIGATION AND MISTING SYSTEMS

State the amount to be ADDED TO the Base Proposal Amount to install a drip irrigation and mist system with controls. Refer to the drawings and specifications for further information.

ALTERNATE #5: ENVIRONMENTAL CONTROL SYSTEM

State the amount to be ADDED TO the Base Proposal Amount to install an environmental control system that coordinates all of the mechanical and electrical system. Refer to the drawings and specifications for further information.

END OF SECTION

PART ONE – GENERAL

RELATED DOCUMENTS

ATTENTION IS DIRECTED to Bidding and Contract Requirements which are hereby made a part of this Section.

RELATED WORK: Refer to Division 1

SUMMARY

THIS SECTION DESCRIBES the following requirements including:

1. USE OF PREMISES
2. AREA OF OPERATIONS
3. SECURITY
4. USE OF EXISTING FACILITIES
5. PARKING AND ACCESS
6. EXISTING ENTRANCES AND DRIVES
7. PROTECTION OF UNDERGROUND FACILITIES
8. NO INTERRUPTION OF OCCUPANCY / SEQUENCING
9. MATERIAL STORAGE
10. HOUSEKEEPING
11. HOURS OF OPERATION
12. EMPLOYEE APPEARANCE AND BEHAVIOR
13. NO SMOKING, NO DISTURBING MUSIC
14. PERSONNEL BACKGROUND CHECK

USE OF PREMISES

CONTRACTORS AND SUBCONTRACTORS shall be subject to such rules and regulations for the conduct of the work as the Owner may establish.

BEFORE STARTING THE WORK, each Contractor shall ascertain from the Owner what entrances, routes or roadways shall be used for access to the work, and use only those designated for movement of personnel, materials and vehicles to and from the work. Close coordination will be required of each Contractor with the Owner, other Contractors, the city and others having an interest in the Project to assure that work on the site, access to and from the site and the general conduct of operations is maintained in a safe and efficient manner, and that disruption and inconvenience to existing operations, streets and property is minimized. Each Contractor is responsible to review the site and be familiar with all existing conditions within and around the Owner's property including local conditions and requirements.

CONTRACTOR'S SHALL MAINTAIN FREE ACCESS to all buildings and areas of the site for customers, designated vehicles, service vehicles and fire fighting equipment and at no time shall block off or close roadways or fire lanes without providing auxiliary roadways and means of entrance acceptable to the Owner. Fire hydrants must remain accessible at all times. Contractors shall give the Owner and the local fire department at least forty-eight (48) hours notice of any such changes of routes.

CONTRACTORS WILL NOT BE ALLOWED to use any Owner tools or equipment during the course of this project. Not mops, buckets, brooms, rags, nor ladders, etc.

EACH CONTRACTOR AND SUBCONTRACTOR shall be responsible for all damage to the project including the existing buildings and grounds due to their operations under this contract. Repair or replacement of damaged items shall be to the satisfaction of the Owner.

WORK SHALL BE CONSTRUCTED IN PHASES to accommodate the Owner's use of the premises during the construction period and for installation of their equipment. Coordinate the construction schedule with the Owner.

AREAS OF OPERATIONS

AREA OF OPERATIONS: Provide suitable barriers to effectively confine dust, dirt, noise to the construction area.

CONTRACTOR SHALL AT ALL TIMES maintain a clean and safe passageway for Customers, and the Owner's operations and personnel in existing areas and maintain clearances adjacent to and in connection with the work performed.

1. RESTRICT ALL WORK ACTIVITIES associated with an area undergoing renovation to within the contract boundaries indicated on the contract documents and previously agreed with Owner. Any means of access or egress from the stipulated contract boundaries shall be coordinated with the Owner.
2. CONTRACTORS SHALL LIMIT THEIR USE of the premises for work and for storage, to allow for:
 - a. Work by other Contractors
 - b. Owner occupancy and operations
 - c. Public Safety and use
 - d. Use of Corridors
 - e. Customer access and parking
 - f. Owner Deliveries
3. THE OWNER SHALL HAVE THE OPTION to curtail or delay any activity that affects their operations. Should a Contractor be asked to stop their work the Contractor shall do so immediately and proceed with other activities with no additional cost to the Owner. The Owner will occupy the premises during the entire period of construction for the conduct of their normal operations. All Contractors are to cooperate with the Owner in all construction operations to minimize conflict, and to facilitate Owner usage.

THE PRESERVATION OF EXISTING TREES and other vegetation on the site to the maximum extent possible is important. In many cases, trees in close proximity to the site work are to be preserved. The Contractor must plan its work and instruct its personnel to conduct their operations to avoid damage to trees and vegetation (provide barriers as required). Indiscriminate driving about the site, disposing of waste, storage of materials upon or against trees or any other activity which is harmful to trees or vegetation that are to be preserved is not acceptable. Parking areas, storage areas, and access to the buildings will be confined to areas designated and approved. Any case of damage to any tree shall be reported to the Owner immediately so that professional repairs can be made. The cost of such required repairs or treatment shall be charged to the Contractor responsible.

SECURITY

IDENTIFICATION BADGES or other identifying means shall be provided for each of contractor's employees and its subcontractor's employees.

USE OF EXISTING FACILITIES

CONSTRUCTION PERSONNEL ARE TO LIMIT THEIR USAGE of the occupied areas of the facility to that which is absolutely necessary for the installation of their work. Parts of the facility not in the construction area are "off limits" unless a specific work task is being performed, and Owner approval is needed.

CONSTRUCTION PERSONNEL ARE NOT ALLOWED to use the Owner's break room, telephones, toilet facilities, tools, equipment, etc. Contractor's employees shall not use the Owner's facilities for personal use such as lunchrooms and similar areas for coffee breaks, clothing changes or similar uses. The Owner's complex shall be off-limits to all construction personnel without prior approval of the Owner.

PARKING AND BUILDING ACCESS

PARKING: There is limited on-site parking for Contractor and Subcontractor employees. Any additional arrangement is the responsibility of the Contractor. Contractors and their employees will not be allowed to park in the designated Owner's parking area.

ACCESS: To the building shall be provided for the Owner at all times.

1. SAFE AND CLEAN access way shall be provided and maintained by Contractors.
2. SUITABLE DIRECTIONAL AND SAFETY SIGNS to be installed by Contractor. Maintain and remove at completion.

EXISTING ENTRANCES AND DRIVES

CONTRACTOR AND CONSTRUCTION DELIVERY ACCESS to the worksite shall be as designated by the Owner. Selected entrances to the construction site will remain open during normal working hours for the use of all Contractors. Contractors shall utilize specific entrances for material deliveries, equipment deliveries and workmen access to the construction site as directed by the Owner.

AT NO TIME ARE ANY VEHICLES to be parked, whether attended or not, in the Owner's entrances or drives. Any material delivery which will tie up the Owner's entrances or drives shall be pre-scheduled with the Owner. In scheduling construction deliveries the Contractor understands that the Owner's deliveries and operations will take precedence.

PROTECTION OF UNDERGROUND FACILITIES

PROVIDE AND MAINTAIN PROPER SHORING AND BRACING for existing underground utilities, sewers, and building foundations, encountered during their excavated work to protect them from collapse or movement, 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.

1. PRIOR TO BEGINNING ANY EXCAVATION, the Contractor shall contact MISS DIGG or appropriate agency and utility companies for the location of all existing underground services and provide, if requested, documentation to the Owner of such contact. If necessary, the Contractor shall pay for appropriate layout and locating of existing utilities.

UTILITIES AND/OR OTHER SERVICES WHICH ARE SHOWN, or not shown but encountered, shall be protected by the Contractor from any damage caused as a result of work and operations, unless or until they are abandoned. If the utilities or services are damaged from their work or operations the Contractor shall immediately repair any damage and restore the utilities and services to any equal or better condition than that which existed prior to the damage. The Contractor will be responsible for all liabilities or claims resulting from such damage and will defend and hold harmless and indemnify Owner and Architect from any claims or law suites.

CONTRACTOR IS RESPONSIBLE for all damage to the project including the existing building and grounds due to their operations under this contract. Repair or replacement of damaged items shall be to the satisfaction of the Owner.

SPECIAL ATTENTION to existing GAS MAIN SERVICE LINE

NO INTERRUPTION OF OCCUPANCY / SEQUENCING

CONTRACTOR IS RESPONSIBLE to plan, coordinate and execute their work in such a manner that there will be no disruption of the Owner's operations. If an interruption of operations is unavoidable, then this work will be scheduled with the Owner prior to beginning such work. Contractors are advised the building will be in operation during construction operations and steps must be taken to protect the Owner and its personnel from the hazards of on-going construction work.

DUE TO THE NATURE OF THE OWNER'S EXISTING AREAS, the sequence of work must be scheduled and coordinated with the Owner's on-going operations to minimize disruptions and/or disturbances to the Owner's work. At all times the Contractor's work shall remain as secondary to the Owner's operations. Each segment of the work shall be coordinated with the Owner prior to proceeding. WORK WHICH INTERRUPTS THE OWNER'S SERVICES will be accomplished during the time periods when it is least inconvenient to the Owner and completed in the shortest possible time frame.

Contractors may be requested to work split shifts, weekends, off peak Owner loading periods, etc., to accommodate Owner's utility and service requirements, such as, but not limited to, gas systems, electrical power, HVAC systems, water, storm and sanitary lines.

CONTRACTORS ARE RESPONSIBLE to provide any temporary alternate supply and/or return conditions to maintain services to the facility while work is being performed. Place safety stages or markers to indicate location of disconnected services.

NO INTERRUPTIONS TO OWNER'S POWER, lighting, signal, or alarm circuits will be permitted without the express written permission of the Owner. Arrangements for interruptions shall be made with the Owner at least forty-eight (48) hours prior to interruption and shall be made at such time and duration as authorized by them. Temporary feeders, transformer jumpers, connections, circuits, etc., shall be used as required to accomplish the above at no additional costs to the Owner.

CONSTRUCT THE WORK in stages to provide for public convenience. Do not close off public use of facilities until completion of one stage of construction will provide alternative usage or other means have been provided.

MATERIAL STORAGE

PROVIDE SUITABLE STORAGE TRAILERS on site as required. These are to be relocated and removed when no longer needed.

STOCK THE JOB WITH SUFFICIENT MATERIALS to maintain progress and schedule and without interfering with the work or storage of others. Each Contractor assumes full responsibility for the protection and safekeeping of products under their control which are stored on the site. Contractors must move any stored products, under their control, which interfere with operations of the Owner or separate Contractors as directed by the Owner.

PROVIDE SUFFICIENT PROTECTION for materials and equipment from damages by weather or construction work.

EACH CONTRACTOR AND SUBCONTRACTOR shall submit a receipt of shipment for all equipment stored on site or off-site, if requested. No materials or equipment shall be removed from the site without permission of the Owner.

HOUSEKEEPING

GOOD HOUSEKEEPING shall be observed at all times. Waste, debris and garbage shall be removed daily, or placed in appropriate waste containers. All materials, tools, and equipment shall be stored in a safe and orderly fashion.

STORAGE AND COMBUSTIBLE MATERIALS within or adjacent to the building is prohibited.

CONTRACTORS SHALL CLEAN UP THEIR MATERIALS, DEBRIS. This clean up shall be on-going. The areas where public and staff are present or anticipated shall received special care to be clear of debris, trip hazards, etc.

DURING PROGRESS OF WORK and upon completion of the work, remove all debris and leave the area in a clean and orderly condition.

1. FINAL CLEANING may take place in phases.

HOURS OF OPERATIONS

EACH CONTRACTOR SHALL CONFINE their work to normal working hours; 7:00 a.m. to 3:00 p.m. Monday through Friday. The Contractor may execute the work during the entire twenty-four (24) hours of any day of the week with the approval of the Owner, provided that they so conduct their operations as to not create a public nuisances or disturb the peace, and provide such operations are conducted so as to comply with all applicable laws, ordinances, and regulations and that building security needs are provided.

WHENEVER A CONTRACTOR INTENDS TO DEPART from normal work hours, it shall notify the Owner in writing at least forty-eight (48) hours in advance. Special arrangements can be made for emergency work or shutdowns as may be required.

EMPLOYEE APPEARANCE AND BEHAVIOR

SLEEVED SHIRTS AND LONG PANTS are required minimum clothing. Short sleeved shirts may not be rolled up. Shirts may not be rolled up at the waist. Pants may not be rolled up past the top of the boots or shoes worn.

POSSESSION OR CONSUMPTION of alcoholic beverages or drugs, or other noxious behavior on the site is strictly prohibited.

DISRESPECTFUL ACTIONS SUCH AS LEERING, whistling, sexual harassment and racial remarks / discrimination toward employees, or the public, are prohibited. Smoking is not allowed.

THE CONTRACTOR AND SUBCONTRACTORS/SUPPLIERS shall exercise common sense and good judgment, and to conduct themselves in a manner which would be a credit to the Owner. The following are prohibited:

1. CONDUCT THAT INTERFERES with work or work of others.
2. CONDUCT THAT INTERFERES with, or is detrimental to good safety and well-being.
3. UNAUTHORIZED use of confidential information.

4. DISCOURTESY TOWARD Owner's staff, visitors and the general public (including abusive, vulgar or other language).
5. SOLICITING.
6. DISREGARD OF SAFETY, sanitation, or security regulations or requirements.
7. CONDUCT DETRIMENTAL to the Owner's operations and good reputation.
8. STEALING
9. GAMBLING
10. POSSESSION and/or use of narcotics or intoxicants.
11. THREATS or abuse of others.
12. DISORDERLY CONDUCT or fighting.
13. PLAYING OF LOUD MUSIC
14. FALSIFICATION OF INFORMATION
15. POSSESSION OF GUNS, knives
16. DISCRIMINATING BEHAVIOR
17. SEXUAL OR ETHNIC HARASSMENT

IT IS PROHIBITED for the Contractor or his personnel to canvass, solicit, post, or distribute literature or materials for any purpose while on the job site.

CRIMINAL BACKGROUND CHECK, may be undertaken by the Owner. A felony conviction may likely cause removal from of that individual this job site.

RADIOS: Not permitted during times the Owner occupies the building.

END OF SECTION

PART ONE - GENERAL

SCHEDULE OF VALUE

SUBMIT within 15 days after date of Agreement.

FORMAT: Printed on AIA Form G703 - Application for Payment Continuation Sheet.

1. IDENTIFY each line item with number of Specification Section.
2. BREAKDOWN principal subcontracts to several line items.
3. WHEN STORED MATERIAL requests may be submitted, provide separate line items for initial material costs, each subsequent stage of completion, and for total installation value.
4. INCLUDE separate from each line item, the Contractor's general requirements, overhead, profit.
 - a. Percentage for these items will not be allowed to exceed percentage of work completed to date.
5. INCLUDE SEPARATE FROM EACH LINE ITEM, the Contractor's cost included in the Proposal for Closeout Documents.
 - a. Line item will not be paid until required closeout documents are received.
6. AT CONTRACTOR'S OPTION: Temporary facilities, permits, bonds, fees, etc that are not a direct result of actual work in place may be shown as separate line items.
 - a. Retention may not be held for these items.

APPLICATION FOR PAYMENT

SUBMIT THREE (3) COPIES on AIA Form 702 Application and Certificate for Payment.

FORMAT: Utilize schedule of values, AIA Form 703.

PAYMENT CONSTRUCTION PERIOD: Generally is the last day of the month.

CONSTRUCTION SCHEDULE UPDATE: To be included with each Application.

WAIVERS OF LIEN

WAIVERS OF MECHANICS LIEN: Submit with each Application Waivers of Mechanics Liens from sub-contractors, and suppliers for the construction period covered by the previous application.

1. SUBMIT PARTIAL WAIVERS on each item for the amount requested; prior to deduction for retainage, on each item.
2. SUBMIT FINAL OR FULL WAIVERS when an application shows completion of an item.
3. OWNER RESERVES right to designate which entities involved in the Work must submit waivers.
4. WAIVER FORMS: Shall be on the form and executed in a manner, acceptable to the Owner.
5. WAIVER CHECKLIST: Shall be submitted with each Application for Payment, to clearly identify the list of waivers required and the amount that each is to be for. Refer to the form at the end of this specification section for a sample.

INITIAL APPLICATION FOR PAYMENT

ADMINISTRATIVE ACTIONS AND SUBMITTALS that must precede or coincide with the first Application include:

1. LIST OF SUBCONTRACTORS, suppliers, fabricators.
2. SCHEDULE OF VALUES
3. CONTRACTOR'S CONSTRUCTION SCHEDULE
4. SUBMITTAL SCHEDULE (preliminary; not final)
5. CONTRACTOR'S STAFF ASSIGNMENTS and principal consultants
6. COPIES OF APPLICABLE PERMITS
7. COPIES OF AUTHORIZATIONS and licenses from governing authorities for performance of the work.
8. INITIAL PROGRESS REPORT and pre-construction meeting report.
9. CERTIFICATES OF INSURANCE and insurance policies (prior to commencing on work).
10. PERFORMANCE AND MATERIAL and labor bonds, if applicable (prior to commencing on work).

APPLICATION FOR STORED MATERIAL

REQUESTED AMOUNTS for materials suitable to be stored on site shall be shown under that column on the Form and include the following:

1. WRITTEN REPRESENTATION that it is the Owner of such materials free and clear of all liens, security interest or claims of others' such as a notarized "Bill of Sale".
2. OR INVOICE for such material marked "Paid".
3. OR OTHER PROCEDURE, accepted by the Owner to establish the Owner's title or otherwise protect the Owner's interest.

WHEN PAID such material shall become the sole property of the Owner. However, it shall not relieve the Contractor from sole responsibility for insurance coverage, or for the care and protection of such materials, or restoration of any damages or loss of material. Nor shall it waive the Owner's right to fulfillment of all Contract terms.

DO NOT INCLUDE material planned to be incorporated into the Work in the next 30 days.
A SCHEDULE OF MATERIALS with attached invoices, to be included. Update monthly.

APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION

SUBMIT following issuance of the Certificate of Substantial Completion.

ADMINISTRATIVE ACTIONS AND SUBMISSIONS that shall precede or coincide with the application include:

1. OCCUPANCY PERMITS and similar approvals.
2. WARRANTIES (Guarantees) and maintenance agreements.
3. TEST/ADJUST/BALANCE record
4. MAINTENANCE INSTRUCTIONS
5. METER READINGS
6. START UP PERFORMANCE REPORTS
7. CHANGE OVER INFORMATION relating to Owner's occupancy, use, operation, and maintenance.
8. FINAL CLEANING
9. APPLICATION FOR REDUCTION OF RETAINAGE (Reduced to maximum 5%)
 - a. Consent of Surety to Reduction in or Partial Release of Retainage (AIA Document G707A)
10. LIST OF INCOMPLETE WORK, recognized as exceptions to the Architect's Certificate of Substantial Completion.
11. ESCROW 200% of the value of incomplete or unaccepted work; as determined by Architect.

FINAL PAYMENT APPLICATION

ADMINISTRATIVE ACTIONS AND SUBMISSIONS which must precede or coincide include:

1. COMPLETION OF PROJECT CLOSE OUT REQUIREMENTS
2. COMPLETION OF ITEMS specified for completion after substantial completion.
3. ASSURANCE THAT UNSETTLED CLAIMS will be settled.
 - a. Contractor's Affidavit of Payment of Debts & Claims (AIA Document G706).
 - b. Contractor's Affidavit of Release of Liens (AIA Document G706A).
4. ASSURANCE THAT work not complete and accepted will be completed without undue delay.
5. TRANSMITTAL OF REQUIRED PROJECT construction records including as-built drawings to Owner.
6. PROOF THAT TAXES, FEES and similar obligations have been paid.
7. REMOVAL OF TEMPORARY FACILITIES and services.
8. REMOVAL OF SURPLUS material, rubbish and similar elements.
9. CHANGE OF DOOR LOCKS to Owner's access.
10. APPLICATION FOR REDUCTION OF RETAINAGE ONLY, to close out the project to a zero balance.
 - a. Consent of Surety to Final Payment (AIA Document G707).
11. PROOF THAT ALL SUBCONTRACTORS have been paid.
 - a. Provide full unconditional waivers of lien.

PROPOSAL REQUESTS

OWNER INITIATED CHANGE ORDER PROPOSAL REQUESTS: Will be issued by the Architect.

CONTRACTOR INITIATED CHANGE ORDER REQUESTS: Should be submitted on AIA form G709, when latent or other foreseen conditions require modification to the Contract. Provide a complete description of the proposed change and the reason it is needed.

REVIEW THE DOCUMENTS and the Submittals for related work, including Shop Drawings and Product Data, for changes or corrections necessary for the work described, in order to conform to the modifications described in the Proposal Request.

FURNISH A DETAILED QUOTATION breaking down the cost of the proposed modifications by item numbers and subheadings as listed in the Proposal Request. Include, where applicable, claims for extension of time. Furnish quantity takeoffs, rental costs, and other pertinent data substantiating the quoted costs.

WHEN CREDITS and extras are involved on the same Proposal Request, compute the net credit or extra prior to adding the overhead and profit.

DO NOT PROCEED with any modification proposed in a Proposal Request until receiving a Change Order signed by the Owner.

CONTRACT CHANGE ORDER

IF THE COSTS of such change as submitted for in the Proposal Request is accepted and approved by the Owner and the Architect, a Contract Change Order will be issued to the Contractor, giving him authority to proceed with the work and increasing or decreasing his contract by the amount occasioned by such change. Work shall be performed according to the Contract Documents as modified by the Change Order.

ARCHITECTS SUPPLEMENTARY INSTRUCTIONS

WILL ONLY BE ISSUED when no money is involved. If an item of cost is involved, a Proposal Request will be issued.

IF TIME for issuing a Proposal Request is insufficient due to a condition where life and/or property may be endangered, the Architect/Engineer will issue a Construction Change Directive (CCD). This CCD, with the Owner's written approval, will clearly state the compensation method and give the Contractor authority to proceed with the work involved. Maintain detailed records on time and material basis of work required.

END OF SECTION

01 210 PRE-CONSTRUCTION CONFERENCE

CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE within fifteen (15) days after receipt of a Letter of Intent or after the date of the Notice to Proceed, at a central site convenient for all parties.

AGENDA may include the following as appropriate:

1. PROJECT COORDINATION and designation of responsible personnel, scheduling, sequencing, major equipment deliveries, tentative project schedule, and designation of responsible personnel.
2. PROCEDURES AND PROCESSING of field decisions, proposal requests, submittals, Change Orders, and Applications for Payment.
3. CONSTRUCTION FACILITIES, controls, construction aids, and temporary utilities. Use of premises for office, work and storage area and for the Owner's requirements. Safety, first-aid, security and housekeeping procedures.
4. PROCEDURES for maintaining Record Documents, Shop Drawings Submission, Owner's Requirements, Progress Meeting schedule.

01 220 PROGRESS MEETINGS

CONTRACTOR SHALL SCHEDULE regular periodic meetings and additional meetings as required by the progress of the work.

IN ATTENDANCE shall be the Owner, the Architect, professional consultants as needed, Subcontractors, Suppliers, and others as appropriate.

AGENDA may include the following as appropriate:

1. REVIEW OF WORK PROGRESS, problems and conflicts, fabrication and delivery schedules, and proposed changes affecting the Construction Schedule and the completion date.
2. CORRECTIVE MEASURES and procedures to retain the projected schedule or revisions to the Construction Schedule.
3. PLANNING OF THE SUCCESSIVE work period.
4. COORDINATION WITH separate contracts and Owner's occupancy, as applicable.

MEETING shall be confined to a minimum time consistent with discussion of the overall work.

ITEMS requiring discussion with a limited group or an individual subcontractor or supplier shall be excluded from the general meeting.

01 230 JOB SITE ADMINISTRATION

SITE ACCESS

THE OWNER, its authorized representative and the ARCHITECT shall at all times have access to and be permitted to observe and review all work, materials, equipment, material invoices, inspections, approvals, and other relevant data and records pertaining to this Contract. However, all instructions and approval with respect to the work will be given to the Contractor only by the Owner.

RESPONSIBILITY

THE CONTRACTOR is responsible for the general charge of the construction and the site until the project is turned over to the Owner. He is responsible for damage to adjacent property due to his operations, and for the protection of persons, in accordance with the Conditions of the Contract.

SAFETY

THE CONTRACTOR is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with performance of the Contract.

THE CONTRACTOR shall report immediately by telephone, then in writing, to the Architect and Owner, all accidents whatsoever arising from or in connection with the performance of his Contract, whether on or off the site, which caused death, personal injury or property damage. The Contractor shall supplement the report with full details and statements of witnesses as they come available. The Contractor shall promptly report the full details of any claims made against the Contractor or any Subcontractor resulting from such accidents.

NEITHER THE OWNER NOR ARCHITECT-ENGINEERS assume responsibility for construction site safety, or the Contractor's other parties' compliance with local, state and federal safety or other regulations.

UTILITIES

COOPERATE FULLY with utility contractors who will be working within the project limits during the construction period. Schedule the Work accordingly in making areas available to them. Contact, coordinate and make the necessary arrangements with the proper respective authorities for the connections to the utilities required under the Contract.

COOPERATION

COMPLETION OF CONSTRUCTION within the prescribed schedule is dependent very largely upon the close and active cooperation of all Contractors. Each Contractor shall perform his work under the supervision of the General Contractor, as scheduled, and so as not to delay or interfere with others.

DISPUTES

IN THE EVENT of any dispute between the various Contractors, the General Contractor's decision shall be binding on all parties.

END OF SECTION

01 300 LIST OF SUBMITTALS

THE FOLLOWING MAJOR SUBMITTALS shall be delivered to the Architect at the time indicated. Refer to numbered Articles in the General Conditions of the Contract-2007.

1. PERFORMANCE AND LABOR AND MATERIAL BONDS if required, by Article 11.4. Submit prior to start of construction.
2. INSURANCE CERTIFICATES: Article 11.1. Mandatory submission prior to start of construction.
3. LIST OF CONTRACTORS: Article 5.2.1. Submit within 15 days after award of Contract.
4. APPLICATION FOR PAYMENT: Article 9.3. Submit monthly.
5. SHOP DRAWINGS, PRODUCT DATA, SAMPLES: Article 3.12
6. PRODUCT PERFORMANCE AND CERTIFICATES: Article 3.12.10 and per section 01 341.
7. SCHEDULE OF VALUES: Article 9.2. Submit before first Application for Payment.
8. PRODUCT SUBSTITUTIONS: Submit within 30 days of Contract Award, per Section 01 640.
9. PROJECT RECORD DOCUMENTS: Article 3.11 record during construction.
10. GUARANTEES, WARRANTIES and BONDS: Article 3.5. Submit with final Certificate for payment.

01 310 PROGRESS SCHEDULES

IMMEDIATELY AFTER AWARD of the Contract, the Contractor shall prepare and submit to the Architect, a preliminary construction schedule for the work.

THE PROGRESS SCHEDULE shall be prepared according to the critical path form of scheduling.

1. UPDATE as required, without adjustment of the date of completion, unless this has been adjusted by Modification to the Contract Documents.

THE CONTRACTOR and all Subcontractors, suppliers and manufacturers shall schedule materials, deliveries and installations to conform to the network plan, and provisions to this effect shall be included in all Subcontracts.

PREPARE AND SUBMIT a separate schedule listing shop drawings, product data, and samples and indicating critical date for review and return.

SUBMIT A SCHEDULE for product delivery, including items that may be furnished by the Owner.

SUBMISSION AND DISTRIBUTION

SUBMIT PRELIMINARY SCHEDULE within 15 days after Contract Award, to the Architect.

SUBMIT JOB PROGRESS SCHEDULE within 10 days after preliminary schedule is submitted.

EACH APPLICATION FOR PAYMENT shall be accompanied by an assessment as to the status of progress with respect to the schedule.

PRINT AND DISTRIBUTE copies of the approved schedules to job site, subcontractors, and other concerned parties.

INSTRUCT RECIPIENTS to promptly report problems anticipated by the projections shown on the schedules.

01 315 COMMUNICATIONS

CONTRACTOR'S DAILY REPORTS

GENERAL CONTRACTOR and each major trade contractor will prepare a daily report. Maintain it during the entire project period.

1. TAKE ACTION to alert the Owner and Architect of items which could possibly result in claims or delays.

DAILY REPORTS shall include the following as a minimum.

1. MANPOWER: By Trade
2. WEATHER: Temperature and range, precipitation and amount.
3. LIST OF VISITORS
4. DETAIL DESCRIPTION OF WORK being performed with specific location, floor, etc.
5. SITUATIONS or circumstances that could delay work or give causes for delays or claims for extensions or added costs.

6. INSTRUCTION of information requested.
7. ACCIDENTS, INJURIES, etc.
8. MATERIALS RECEIVED: Provide Receipts
9. MAJOR EQUIPMENT ARRIVALS / DEPARTURES

REQUEST FOR INFORMATION (RFI)

THE ARCHITECT'S RESPONSE interprets the drawings and specifications and field conditions, etc. It does not alter the contractor's responsibilities, nor the cost, or the schedule, or level of performance.

THE CONTRACTOR shall maintain a written record of inquiries and responses related to interpretation and implementation of the contract documents.

RFI SHOULD BE PREPARED in a timely fashion, as soon as a need is recognized. RFI's will be responded to in average of ten (10) working days. However, RFI response time can vary depending on the urgency of the issue, the amount of work required by the architect-engineer, or Owner, to develop a complete response, and other circumstances such as building official approval. Such circumstances may require more than five working days for a response.

PREPARE RFI'S in a standard format, include:

1. RFI NUMBER and date.
2. IDENTITY OF AUTHOR.
3. REFERENCE TO A SPECIFIC DESIGN DRAWING NUMBER, and specific details as applicable, or specification section.
4. NEEDED RESPONSE DATE (do not use ASAP).
5. DESCRIPTION OF A SUGGESTED SOLUTION. Graphic depictions are recommended for more complex issues.
6. INDICATION OF ANY POSSIBLE SCHEDULE or cost impact.

LIMIT RFI'S to one question (unless multiple questions are inter related to the same issue) to facilitate the resolution and minimize response time.

QUESTIONS AND PROPOSED SOLUTIONS should be clear and complete. Use of digital photographs is encouraged. The ability of the architect-engineer to respond promptly depends greatly on the clarity and

completeness of the question and supporting information.

WHERE RFI IS RETURNED to contractor for additional information needed by the reviewer, the RFI is re-

issued by the Contractor with a revised number and a revised returned date.

RFI'S TYPICALLY USED WHERE

1. NECESSARY INFORMATION appears to be missing or incomplete from design drawings or specifications.
2. CONTRACTOR SEEKS CLARIFICATION of design drawings or specifications.
3. APPARENT DISCREPANCIES within or between design drawings and specifications.
4. AN ALTERNATE METHOD to resolve field conflicts or constructability issues is needed.
5. CLARIFICATION OF THE TREATMENT of existing, or "as-built" conditions that differ from the conditions shown on the design drawings or specifications.
6. TO CONFIRM VERBAL UNDERTANDING between architect-engineer and contractor related to the above items.

ANY CHANGES TO THE CONTRACT COST or completion time as a result of RFI response require the Contractor to prepare a written Change Order for Owner written approval – before any work proceeds.

01 340 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

NO PORTION of the work requiring a Shop Drawing, Product Data, or Sample submission shall be commenced until the submission has been reviewed and accepted by the Architect. All such portions of the work shall be in accordance with the accepted submittals.

COORDINATION: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

PROCESSING: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.

1. ALLOW TWO (2) WEEKS FOR INITIAL REVIEW.
2. IF AN INTERMEDIATE SUBMITTAL IS NECESSARY, process the same as the initial submittal.
3. ALLOW TWO (2) WEEKS for reprocessing each submittal.
4. NO EXTENSION OF CONTRACT TIME will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the work to permit processing.

SUBMITTAL TRANSMITTAL: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.

SUBMITTAL SCHEDULE: Prepare a complete schedule of submittals after acceptance of the Construction Schedule. Submit 10 days after date required for submission of construction schedule.

SUBMISSION REQUIREMENTS: Where possible, transmit all submittals electronically. Provide all submittals according to the following schedule.

ELECTRONIC FORMAT: Transmit submittals in .pdf format for review according to the above requirements. Each submittal shall be issued separately, including separate transmittals for each submission. Reproduction and distribution as needed for their construction operations is the sole responsibility of the contractor.

1. SIZE PRINTABLE: 8-1/2 x 11 minimum and 24 x 36 maximum.
2. PLANS, ELEVATIONS, SECTIONS and detail drawings shall be to scale, with scale indicated.
3. PRESENT IN A CLEAR and thorough manner. Title each drawing with project name. Identify each element of drawing with reference number.
4. INDICATE FIELD VERIFIED DIMENSIONS. Show relationship of products to adjacent work. Note coordination requirements.

HARD COPY

The Contractor will receive only one (1) reviewed submittal back. Reproduction and distribution as needed for their construction operations is the sole responsibility of the Contractor.

1. CIVIL: Three (3) copies
2. ARCHITECTURAL: Three (3) copies
3. STRUCTURAL: Three (3) copies
4. MECHANICAL: Three (3) copies
5. ELECTRICAL: Three (3) copies

CONTRACTOR OPTION in order to expedite the return of a hard copy submittal, any shop drawing larger than 11 x 17 may be submitted on a reproducible transparency, along with two (2) blackline copies.

Architect will review and mark up the transparency and return this to the Contractor. Reproduction and distribution as needed for their construction operations is the sole responsibility of the Contractor.

SHOP DRAWINGS

DRAWINGS SHALL BE PRESENTED in a clear and thorough manner. Details shall be identified by reference to sheet and detail, schedule or room numbers shown on the Contract Drawings.

Reproductions of Contract Drawings are not acceptable.

1. STANDARD INFORMATION prepared without reference to the project is not considered shop drawings.
2. USE OF ELECTRONIC FILES may be used if Contractor completes and signs CADD waiver provided by the Architect. Contractor will also be charged a fee per sheet requested.

SHOP DRAWINGS SHALL SHOW all dimensions, materials and details of fabrication, construction, connections and installation for proper fit and coordination in respect to related or adjacent work. Scale of the shop drawings shall be of sufficient size to show all individual components to accurate shape and size, and to indicate clearances for other work. In the case of structural elements, include all design factors used for the basis of development. Include the following information:

1. COMPLIANCE with specified standards.
2. NOTATION of coordination requirements.
3. NOTATION of dimensions established by field measurement.

SUBMIT the number of copies as specified in submission requirement section.

PRODUCT DATA

CLEARLY MARK EACH COPY to identify pertinent products or models. Show performance characteristics and capacities. Show dimensions and clearances required. Show wiring or piping diagrams and controls. Product data shall cite applicable standards.

WHERE PRINTED PRODUCT DATA includes information on several products, some of which are not required - mark copies to indicate the applicable information.

DO NOT SUBMIT PRODUCT DATA until compliance with requirements of the Contract Documents has been confirmed.

MODIFY MANUFACTURER'S STANDARD schematic drawings and diagrams. Delete information which is not applicable to the Work. Supplement the standard information to provide information specifically applicable to the Work.

MANUFACTURER'S DIRECTIONS or instructions when mentioned in the specifications; submit copies of said instructions or directions or both, for review before commencing work.

SUBMIT the number of copies as specified in submission requirement section.

ENVIRONMENTAL CERTIFICATE

EACH PRODUCT OR MATERIAL SUPPLIER shall submit a written certification from the manufacturer or source that the material it is supplying does not contain asbestos, lead or urea formaldehyde. It shall also be signed by the installing contractor and General Contractor.

1. SUBMIT BEFORE the product or material is ordered.
 - a. Submit with Product Data Submission.
2. SPECIAL ATTENTION TO (but not limited to) concrete mix, floor sealers, casework, insulation, sealants, flooring adhesives, vinyl composition tile, linoleum, paint, suspended acoustic ceilings, hardwood floor sealers, residential cabinets, countertops, blinds, floor mats, mechanical insulation, light fixtures, etc.

SAMPLES

SUBMIT SAMPLES of sufficient size and quantity to clearly illustrate functional characteristics of the product, with integrally related parts and attachment devices, and the full range of color, texture and pattern.

SUBMIT AT LEAST TWO (2) sets of samples. If only sample is received, Architect will retain for their files.

WHERE FIELD SAMPLES and mock-ups are required; The Contractor shall erect them at the Project site, at a location directed by the Architect. Fabricate each field sample or mock-up complete and finished, in the size or area specified. Remove field samples and mock-ups at the conclusion of the Work or when otherwise directed by the Architect.

SUBMITTAL AND DISTRIBUTION

PREPARE AND SUBMIT Shop Drawings, Product Data and Samples required by the Contract Documents in accordance with Paragraph 3.12 of the Conditions of the Contract.

SCHEDULE OF SUBMITTALS

SUBMIT PRODUCT DATA/SHOP DRAWINGS for the following, and any additional items requested by Architect:

DIVISION 2

- Underground utility pipes,

DIVISION 3

- Concrete mix
- Foundation reinforcing steel
- Floor sealers, cure agents

DIVISION 4

- Masonry units
- Limestone
- Masonry Accessories

DIVISION 6

- Wood Blocking

DIVISION 7

- Joint Sealants
- Flashings & Trim

DIVISION 8

- Stile & Rail Doors
- Glazing
- Door Hardware

DIVISION 13

- Greenhouse
- Greenhouse Accessories

DIVISION 15

- Fin Tub Heating
- Water Supply Piping
- Supplemental Heating

DIVISION 16

- Fan / Light
- Power Equipment

CONTRACTORS REVIEW RESPONSIBILITY

THE CONTRACTOR SHALL REVIEW, stamp with its approval and submit, with reasonable promptness and in orderly sequence so as to cause no delay in the work or in the work of any other contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents or subsequently by the Architect.

1. **DEVIATIONS:** At the time of submission the Contractor shall inform the Architect in writing of any deviation in the submittals from the requirements of the Contract Documents.

BY APPROVING AND SUBMITTING Shop Drawings and Product Data, the Contractor thereby represents that it has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and has checked and coordinated each Submittal with the requirements of the work and of the Contract Documents.

THE CONTRACTOR shall be responsible for the proper fit of its work to adjoining work and shall, without additional charge, correct any work that does not fit, or furnish new work. In cases where dimensions are governed by conditions already established or which will have been established prior to installation of the Contractor's work or materials, the Contractor shall depend entirely upon its own measurements taken or verified in the field. In all cases he shall verify dimensions prior to fabricating or installing the work.

MAKE ALL CORRECTIONS OR CHANGES required by the Architect and resubmit until accepted.

DISTRIBUTE REPRODUCTIONS of approved Shop Drawings and copies of accepted Product Data to the job site file and the Record Documents file, to other affected contractors and Subcontractors, and to the appropriate Supplier or Fabricator.

ARCHITECT'S REVIEW RESPONSIBILITY

THE ARCHITECT WILL REVIEW Submittals only for conformance with the design concept of the Project and for conformance with the Contract Documents. The Architect's review of a separate item shall not indicate approval of an assembly in which the item functions.

THE ARCHITECT'S REVIEW of Shop Drawings or Samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Architect in writing of such deviation at the time of submission and the Architect has given written approval to the specific deviation, nor shall the Architect's approval relieve the Contractor from responsibility for errors or omissions in the Shop Drawings or Product Data.

THE ARCHITECT will alter or amend shop drawings or descriptions if, in its opinion, the work as described does not conform to the Design Concept and to the information given in the Contract Documents.

REVIEW COMMENTS

THE ARCHITECT will review submittals only for conformance with the Contract Documents and mark them with one (1) of the following notations:

1. "ACCEPTED" - Indicates no exceptions noted; no comment is made.
2. "ACCEPTED AS NOTED" - Submittals thus marked may be released for order and fabrication in accordance with corrections noted, No resubmittal is required.
3. "REVISE and RESUBMIT" - Submittals thus marked shall not be released for order and fabrication. They shall be corrected and resubmitted.

4. "REJECTED" - Indicates that the submittal does not conform. Submittals thus marked shall not be released for any work. Revise and Resubmit.
 5. "NOT REVIEWED RECORD PURPOSES ONLY". Indicates that submittal data was not reviewed, but will be delivered to Owner for its record keeping purposes.
- ANY MATERIAL ordered by the Contractor prior to acceptance of its conformance shall be at its own risk.

01 341 PRODUCT PERFORMANCE AND CERTIFICATIONS

CERTIFICATION OF MATERIALS AND ASSEMBLIES

THE CONTRACTOR shall, prior to completion of the project and before application for final payment, submit notarized affidavits to the Architect for all materials and assemblies which require certification.

THE MANUFACTURER shall provide three (3) copies of the notarized certification stating that the materials furnished comply with the materials specified, and the installation is in accordance with requirements for tested materials and assemblies.

THE SUPPLIER and installer shall provide three (3) copies of the notarized certification stating that the materials received and installed comply with the materials specified and the installation is in accordance with requirements for tested materials and assemblies.

PRODUCTS SPECIFIED BY REFERENCE STANDARDS

THE CONTRACTOR shall furnish certifications to show that the material or work meets the requirements of the applicable Specifications.

WHEN material or work is specified to conform with reference Standard Specifications, for example, American Society for Testing and Materials, Federal Specifications or Specifications of technical and trade organizations.

CERTIFICATIONS shall be in the form of signed affidavits from the producer certifying that the material delivered to the site meets the applicable Specifications.

PRODUCER shall be prepared to submit a current test report, (not older than 12 months) from an independent laboratory, to substantiate the affidavit, when so requested.

WHEN "NONCOMBUSTIBLE" CERTIFICATION is required in any section, with a flame spread classification of Class "A" as defined in National Fire Protection Association Pamphlet 101, Section 6-2; certification shall include the flame spread classification, the fuel contributed and the smoke developed. To qualify as a Class "A" interior finish, flame spread shall not exceed 25; fuel contributed shall not exceed 35; smoke developed shall not exceed 50; as tested in accordance with ASTM E84-70.

01 370 SCHEDULE OF VALUES

GENERAL

SUBMIT A SCHEDULE OF VALUES, per Paragraph 9.2 of the General Conditions of the Contract, within ten (10) days after award of Contract. Upon request of the Architect, furnish supporting data to substantiate the values. The Schedule of Values, as reviewed by the Architect, will be used as the basis for Applications for Payment, but not as a basis for determining the cost of Changes.

FORMAT

TYPE THE SCHEDULE OF VALUES on 8-1/2" x 11" white paper. The Contractor's standard forms and automated printout will be considered for approval by the Architect upon the Contractor's request.

LIST COMPONENT ITEMS per the Table of Contents of this Project Manual. Identify each line item with the respective Specification Section number, with Heading and Article numbers where applicable.

PREPARATION

TABULATE ALL CATEGORIES of work performed directly by the Contractor, including headings corresponding to the Conditions of the Contract and the General Requirements, and all categories of work performed by Subcontractors, vendors and major suppliers of materials. List each name and category of work, together with the net amount of each subcontract or account.

MAJOR SUBCONTRACTORS shall furnish further tabulations of their Subcontracts, prepared in a similar manner, and in such detail as directed by the Architect.

LIST THE INSTALLED VALUE of the components in sufficient detail to form a basis for computing the values for progress payments during construction. The sum of all values listed shall equal the total Contract Sum.

1. FOR STORED MATERIALS on which progress payments will be requested, show the cost of the materials, delivered and unloaded, with taxes paid, compared to the total installed value. Include unit costs and quantities.
2. FOR STAGED CONSTRUCTION, submit a sub-schedule for each separate stage of work specified under Section 01 014, Work Sequence.

SUBMIT A SUB-SCHEDULE for products specified under a unit cost allowance in Section 01 021.

1. BREAK DOWN THE UNIT VALUES for the materials into the cost of the material delivered and unloaded at the site, with taxes paid; and installation costs, including Contractor's overhead and profit.
2. LIST THE QUANTITIES. The unit quantity for bulk materials shall include an allowance for normal waste. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

END OF SECTION

01 500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

COMPLY WITH FEDERAL, State and local codes and regulations and with utility company requirements.

Comply with National Electric Code for temporary electricity.

FURNISH, INSTALL AND MAINTAIN temporary facilities required for construction. Remove such facilities upon completion of the Work.

COMPLETELY REMOVE temporary materials, equipment and services when construction needs can be met by the use of permanent construction, or at the completion of the Project.

ALL COSTS for temporary facilities shall be paid for by the Contractor, unless otherwise noted below.

01 511 TEMPORARY ELECTRICITY

ALL CHARGES for installation, connection and consumption of electrical power used for temporary lighting and power required for this work will be paid by the Owner.

THE CONTRACTOR shall provide and maintain any temporary electrical lighting and power required for this work. At the completion of the work, all such temporary electrical facilities shall be removed and disposed of by the Contractor. Conform to applicable code requirements.

1. INCLUDE meters, transformers, overload protected disconnects, automatic ground-fault interrupters and main distribution switch gear, as may be needed.
2. MAINTAIN so as not to constitute a hazard to persons or property.
3. REMOVE and dispose, at completion.

TEMPORARY LIGHTING AND POWER shall comply with the regulations and requirements of the National Electrical Code, OSHA requirements, and any other local rules and regulations governing temporary electrical installation.

01 513 TEMPORARY HEATING, AND VENTILATION

COLD WEATHER PROTECTION

HEATING required during construction prior to enclosure of the building.

EACH SUBCONTRACTOR shall provide temporary heating and protection necessary to allow their work to continue during cold weather to meet the project milestone dates prior to enclosure.

1. HEATING OF MATERIALS and space heating at required temperatures but a minimum of 50° and for the time specified.
2. FLAME PROOF TARPAULINS or other material for temporary enclosures.

MASON CONTRACTORS shall provide plan to allow work to continue without regard to temperature.

HEAT shall be provided by smokeless UL approved portable heaters, using fuel approved by UL, Factory Mutual, and the Fire Marshal.

1. PROVIDE FUEL, power, maintenance and attendance required for operation of portable heaters.

DAMAGE TO SURFACES caused by portable heaters shall be replaced at the responsible contractor's cost.

TEMPORARY HEAT

ALL CHARGES for temporary heat, including power, fuel and equipment, whether space heaters, existing permanent system or new permanent system, required for this work will be paid by the Contractor.

AFTER ENCLOSURE provide temporary heat at a temperature of at least 65 degrees Fahrenheit up to date of Substantial Completion. By means of:

1. SPACE HEATERS producing even heat.
2. PERMANENT SYSTEM, under condition that the equipment is maintained, kept clean, and renovated immediately before substantial completion.
 - a. Do not use return air ductwork, supply only.
3. REPLACE FILTERS, prior to occupancy.

TEMPORARY VENTILATION

PROVIDE VENTILATION to prevent hazardous accumulations of dusts, fumes, mists, vapors, or gases in areas occupied during construction. Maintain, and remove when no longer required.

DISPOSE OF EXHAUST MATERIALS in a manner that will not result in harmful exposure to persons or materials.

VENTILATE STORAGE SPACES containing hazardous or volatile materials. Provide adequate ventilation for curing installed materials, dispersal of humidity, and ventilation of temporary sanitary facilities.

01 515 TEMPORARY WATER

THE CONTRACTOR and each subcontractor or separate contractor requiring construction water will be allowed to obtain water from the Owner's water source for the purpose of conducting work and will be paid by the Owner.

THE CONTRACTOR and each subcontractor or separate contractor requiring construction water shall provide means for conveying the water from the central source to the points required by his respective operations.

01 516 TEMPORARY SANITARY FACILITIES

PROVIDE DRINKING WATER, and temporary toilet and washing facilities in compliance with laws and regulations. Comply with Rules 402, 403, and 404 of the "General Safety Commission, Lansing, Michigan", Unless more stringent requirements of other authorities are applicable.

SERVICE, clean and maintain the facilities and enclosures.

01 517 TEMPORARY FIRST AID FACILITIES

PROVIDE FIRST AID FACILITIES as required by code, law, ordinance or regulations and as necessary to supply first aid to anyone who may be injured in connection with the work.

01 518 TEMPORARY FIRE PROTECTION

ALL PERSONS or entities performing work on the site shall take all necessary precautions to guard against and eliminate all possible fire hazards.

1. REMOVE COMBUSTIBLE DEBRIS daily.
2. STORE FLAMMABLE MATERIALS, paints, thinners, gasoline only in well-ventilated areas. Mix and preparation restricted to such areas.
3. HANDLE FLAMMABLE MATERIALS in accordance with safe practice and requirements of manufacturer and local authorities.
4. GASOLINE TORCHES or burners are prohibited.
5. NO OIL, COKE OR COAL burning salamanders will allowed within the perimeter of the building after the roof deck is installed.
6. CONTRACTOR shall develop and implement a fire protection and prevention program.
7. CONTRACTOR shall post in every office and building in the areas of the Work the location of the nearest public fire alarm box and the local fire department telephone number.
8. CONTRACTOR shall provide and maintain fire extinguishers in working order in accordance with OSHA or Department of Labor requirements.
9. THE CONTRACTOR SHALL PROHIBIT OPEN FIRES on the site.
10. THE CONTRACTOR SHALL NOT PERMIT welding, flame cutting or other operations involving the use of open arcs or sparking devices without adequate protection and shielding, fire watchers and fire fighting equipment.

01 520 CONSTRUCTION AIDS

PROVIDE AND MAINTAIN CONSTRUCTION AIDS such as temporary stairs, scaffolding, staging, runways, ladders, ramps, platforms, railings, hoists, cranes, chutes, and similar temporary construction required and permit their use by Subcontractors and separate contractors. Coordinate construction aids as necessary to avoid interference. Each Subcontractor or separate contractor requiring similar temporary construction for his exclusive use shall provide, erect, maintain and remove his own. Erect scaffolding independent of walls.

THE CONSTRUCTION, inspection, guying, bracing, safety and maintenance of such construction aids shall conform to all applicable Codes and regulations.

01 522 EXTERIOR ENCLOSURES

PROVIDE TEMPORARY weather tight closure of exterior openings (insulate as needed) to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specifications sections, and to prevent entry of unauthorized persons.

1. AT DOOR MASONRY OPENINGS: Provide sturdy plywood framed security panel, until permanent windows are installed.
2. OTHER ENCLOSURES shall be removable as necessary for work and for handling of materials. CLOSURES shall be solidly constructed, weatherproof, designed to exhaust air when necessary, to prevent build-up of temperature and humidity and to preclude entry of rain, snow, or wind. Tarpaulins shall be flameproof.

SNOW AND ICE shall not be allowed to remain in or on any portion of the work, except finished roof.

PROVIDE TEMPORARY ACCESS DOORS with self-closing hardware and heavy-duty locks.

CONTRACTOR is responsible for securing of the site and building.

01 530 BARRIERS

FURNISH AND INSTALL SUITABLE BARRIERS as required to prevent public entry, and to protect the Work, neat and reasonably uniform in appearance, structurally adequate for the required purposes. Remove barriers when no longer needed, or at the completion of the work.

01 531 FENCING

CONTRACTOR shall provide a temporary construction fence to enclose all portions of the work area, where required to prevent injury to the public; and where necessary for the protection of personnel, materials and equipment. Maintain in good condition for the duration of the work.

FENCE may be either of the following types:

1. CHAIN-LINK FENCING; height as required by authority having jurisdiction, but not less than 6'-0"; with steel posts, secure post foundations, bracing, top rails, etc., of size and weight normally used for permanent construction, reused existing fence or new fence.
2. WOOD CONSTRUCTION; height as specified for chain-link fence; consisting of minimum 1/2" thick exterior type plywood panels with 4" x 4" posts and framing; securely anchor posts into ground. Paint panels and framing one coat of sealer and one coat of finish paint, in color to be selected.

FENCE SHALL BE COMPLETE with pedestrian (4'-0" wide) and vehicular (minimum 10'-0" wide) gates as necessary for proper traffic flow. Gates shall be properly hinged and be complete with padlocks and any other accessory items necessary to ensure security during off-shift hours.

MAINTAIN FENCE in good condition until the work has progressed to a point where it is no longer needed for security, or until removal is necessary for proper completion of site work.

01 533 BARRICADES

PROVIDE BARRICADES, GUARDRAILS, night lights and other protection as required by applicable authorities and as required for the protection of the public, staff, workers, etc.

EACH CONTRACTOR is responsible for replacing any protective device removed because of its work. ERECT and MAINTAIN sturdy railings around shafts, stairwells, etc. Remove all such temporary protective measures when no longer required.

01 540 SECURITY

PROVIDE SECURITY on the Work until Substantial Completion. The Owner assumes no risk for the Contractor's materials lost, stolen or damaged, or for damage to the Work before Substantial Completion.

1. **ACCESS AND VISITORS:** The Contractor shall grant access to the Work during normal working hours, without previous arrangement, to authorized persons, including the Owner, the Architect, separate contractors and their representatives, and the representatives of governing agencies. Authorization of other visitors, and access outside normal working hours, shall be by previous arrangement. However, the Contractor shall have the authority to restrict access to hazardous areas and areas where materials or finishes may be damaged by traffic.
2. **MATERIALS:** The Contractor will not be responsible for materials stored on the site by the Owner or by separate contractors, except for damage caused by the Contractor or his Subcontractors.
3. **ON SITE STORED MATERIAL:** Contractor is responsible for all precautions, and provisions to assure the security of its on site materials, equipment, and temporary offices, storage trailers, etc.

01 545 PROTECTION OF WORK AND PROPERTY

CONDUCT A VISUAL INSPECTION of existing conditions and record any unusual, possibly defective issues, such as wall cracks, leaks, floor cracks, beam and wall movements, paving cracks, etc.

1. **PHOTO DOCUMENT** all such conditions. Measure as needed.
2. **CONTRACTOR** shall undertake this work and retain the record.
3. **ANY SUBSEQUENT DAMAGE** to existing conditions shall be deemed as a result of the contractor's operations. All such damage shall be corrected and restored to prior condition, at no additional cost to the Owner.
4. **SPECIAL ATTENTION** to demolition operations, piling operations, etc.

PROTECTION OF UTILITIES: The Contractor and other persons or entities performing portions of the Work near utilities shall comply with ordinances and utility company regulations including the notification of the utilities, the protection of active services, and the removal, capping of plugging of inactive utilities.

01 561 NOISE CONTROL

ELIMINATE NOISE to as great an extent as feasible at all times.

AIR COMPRESSORS shall be equipped with silencers and the exhaust of all gasoline motors and other power equipment shall be provided with mufflers.

IN THE VICINITY OF HOSPITALS, libraries, and schools, special precautions shall be taken to avoid noise and other nuisance. The Contractor shall require strict observance of all pertinent ordinances and regulations.

EXERCISE JUDGMENT in the Conduct of Operations which by nature result in excessive noise. All such operations shall be coordinated with the Contractor and Customer to avoid disruptions to the Customer's operation.

01 562 DUST CONTROL

ACCESS ROADS, public and private roads and parking lots used by the Contractor shall be maintained in a dust-free condition.

DUST CONTROL materials and methods shall be in accordance with applicable standards. No wood oils or waste oils to be used.

01 566 DEBRIS CONTROL

CLEAN UP: Provide on site containers to keep the Work free from waste materials and rubbish. Include the cost of lawful disposal. A rubbish chute shall be provided if required.

1. REMOVE COMBUSTIBLE MATERIALS TO CONTAINERS DAILY or more often as may be required. Remove non-combustible materials at least once each week.
2. COOPERATION: Each entity working on the premises shall remove his own identifiable waste and rubbish to containers.

01 574 PARKING

SUITABLE parking for his employees shall be provided by the Contractor within contract limits. Contractor shall keep this parking area free of dirt and debris at all times.

01 575 HAUL ROUTES

WHERE THE CONSTRUCTION work involves hauling over public or private roads, streets or Highway, the Contractor shall obtain and pay for all permits required. Roads shall be kept open for traffic at all times.

PROVIDE, ERECT AND MAINTAIN WARNING SIGNS, lanterns or other safety devices, and when necessary, provide flagmen for traffic to the satisfaction of local authorities.

KEEP THE RIGHT-OF-WAY of the roads free of debris and upon completion of the work, clean up such roads and repair any damage caused by construction operations, to the satisfaction of local authorities having jurisdiction.

THE DRAINAGE FROM ROADS shall not be obstructed by the construction work.

01 595 SMOKING POLICY

SMOKING IS NOT ALLOWED on school property neither indoors or outdoors.

END OF SECTION

01 620 TRANSPORTATION AND HANDLING

ARRANGE DELIVERIES of products in accordance with construction schedules. Coordinate deliveries to avoid conflict with work and site conditions. Deliver materials when the Contractor is present.

DELIVER PRODUCTS in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.

INSPECT SHIPMENTS to assure that the products comply with the requirements of the Contract Documents and approved submittals, and that the products are properly protected and undamaged.

PROVIDE EQUIPMENT and personnel to handle Products by appropriate methods to prevent soiling or damage to the Products or packaging.

01 630 STORAGE AND PROTECTION

STORE PRODUCTS in accordance with manufacturer's instructions, with seals and labels intact and legible.

1. **INTERIOR STORAGE:** Store in weathertight enclosures all Products subject to damage by the elements. Maintain temperature and humidity within the ranges required by manufacturer's instructions. Locate only in areas as designated by school custodian.
2. **EXTERIOR STORAGE:** Store Products above the ground, on blocking or skids to prevent soiling or staining. Cover with impervious sheeting all Products which are subject to deterioration. Provide adequate ventilation to avoid condensation. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter, or other sizes of like aggregate. Protect from freezing.

ARRANGE STORAGE in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and are free from damage or deterioration.

PROVIDE SUBSTANTIAL COVERINGS as necessary to protect transported, stored and installed products from damage from weather, traffic and subsequent construction operations. Remove coverings when no longer needed.

PACKAGES showing evidence of water or other damage will be rejected, unless the contents are specifically approved by the Architect. Any material showing evidence of water or other damage shall be rejected.

PROTECT the work of other trades from damage due to doing your work.

DAMAGED WORK shall be made good by those performing the work originally, but at the expense of those causing the damage.

01 640 SUBSTITUTIONS AND PRODUCT OPTIONS

PRODUCTS LIST:

1. **WITHIN THIRTY (30) DAYS** after the Contract Date, submit to the Architect for each Specification Section a complete list of items, including materials, systems and equipment, which the Contractor proposes to incorporate into the Work.
2. **INCLUDE THE SPECIFICATION SECTION** number and list each material by type, product, name, model number and manufacturer, as applicable, to properly identify the item and to distinguish it from similar items.
3. **INCLUDE THE NAMES OF SUBCONTRACTORS**, Sub-subcontractors, and major material suppliers.
4. **THE ARCHITECT AND OWNER** will approve or reject the various materials, systems and equipment listed or request additional pertinent information. Do not purchase any products which have not been approved.

CONTRACTOR'S OPTIONS:

1. **FOR PRODUCTS SPECIFIED ONLY BY REFERENCE STANDARD**, select any Product meeting that standard. Submit certification that it meets that standard.
2. **FOR PRODUCTS SPECIFIED BY NAMING ONLY ONE PRODUCT** and manufacturer, there is no option for the basis of the Contract.

3. FOR PRODUCTS SPECIFIED BY NAMING SEVERAL PRODUCTS or manufacturers, select any one of the Products or manufacturers named which complies with the Specifications.

SUBSTITUTIONS

FOR A PERIOD OF THIRTY (30) DAYS AFTER THE CONTRACT DATE, the Architect will consider written requests from the Contractor for substitution of Products. The Architect will review requests for substitutions with reasonable promptness, and notify the Contractor, in writing, of the decision to accept or reject the requested substitution. The Architect shall be the judge of the acceptability of the proposed substitution. The absence of proposed substitutions within this 30 day period will be construed to mean that the materials specified will be used in the construction of the project.

1. SUBMIT A SEPARATE REQUEST for each Product, supported with complete data, with drawings and samples as appropriate, including:
 - a. Comparison of the qualities of the proposed substitution with the Product specified.
 - b. Description of changes required in other elements of the work because of the substitution.
 - c. Description of the effect of the substitution on the construction schedule.
 - d. Cost data comparing the proposed substitution with the Product specified.
 - e. Statement of applicable license fees or royalties included in the cost of the substitution.
 - f. Description of available maintenance service, and replacement materials sources.
2. A REQUEST FOR A SUBSTITUTION constitutes a representation that the Contractor:
 - a. Has investigated the proposed Product and determined that it is equal to or superior in all respects to that specified.
 - b. Will provide the same warranties or bonds for the substitution as for the Product specified.
 - c. Will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the Work complete in all respects.
 - d. Waives all claims for additional costs, under his responsibility, which may subsequently become apparent.
3. SUBSTITUTIONS WILL NOT BE CONSIDERED IF:
 - a. They are indicated or implied on shop drawings or project data submittals without written request as outlined above.
 - b. Acceptance will require substantial revision of the Contract Documents.
4. REQUEST FOR A SUBSTITUTION after the bidding period has concluded that are deemed to only benefit the Contractor will be evaluated by the Architect as an Additional Service provided that the Contractor seeking the substitution has agreed to reimburse the Architect for such Additional Services. Substitution Request shall be accompanied by a check in the amount of \$100 per request. No review will be made until such check is received.
5. IF INSTALLED MATERIALS and equipment are found not in conformance with that specified, Contractor shall remove all non-conforming work from the project site and replace such with that which was specified, at no additional cost to the Owner.

01 650 SUBSTITUTION REQUEST FORM

To: Ehresman Associates, Inc.
803 W. Big Beaver, Suite 350
Troy, MI 48084

Project:

Reference:

Architect's
Project No.:

Date:

It is understood that all Requests for Substitution shall be submitted within thirty (30) days after contract has been awarded. After such time, all requests for Substitution will be denied for approval. See Spec Section 01 630.

Below, please describe in short, the proposed substitution, drawing sheet, and specification section.

<u>Section</u>	<u>Page/Sheet No.</u>	<u>Paragraph/Line</u>	<u>Specified Item</u>
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Attach complete product description, drawings, photographs, performance and test data, available colors/finishes, and other information necessary for evaluation. Identify specific model numbers, finishes, options, etc.

- A. Will changes be required to building design or any components or assemblies in order to properly install proposed substitute? Yes _____ No _____
If yes, explain _____
- B. The Contractor understands that he will pay for changes to the building design, including engineering, drawing costs, and material cost caused by requested substitution.
Yes ___ No ___
- C. Contractor acknowledges and accepts full responsibility in and to the following:
 - 1) Has investigated the proposed Product and determined that it is equal to or superior in all respects to that specified.
 - 2) Will provide the same warranties or bonds for the substitution as for the Product specified.
 - 3) Will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the Work complete in all respects.
 - 4) Waives all claims for additional costs, under his responsibility, which may subsequently become apparent.

Agreement Signature: _____ by _____
Company Representative

D. List description of the difference proposed for each substitution and specified item.

E. Does substitution affect drawing dimensions? Yes _____ No _____

F. What effect does substitution have on other trades? List affected trades: _____

Specified Item

Proposed Substitution

G. Does manufacturer's warranty of proposed substitution differ from that specified? Yes ___ No ___
If yes, explain _____

H. Will substitution affect progress schedule? Yes _____ No _____
How _____

I. Will substitution require more license fees or royalties than specified product? Yes _____ No _____

J. Will maintenance and service parts be locally available for substitution? Yes ___ No ___

K. Will substitution require additional testing, inspection, certification or approvals? Yes ___ No ___

L. Compare specific quality of proposed substitute with specified product.

M. Submit cost savings. \$ _____

Please include company name, address, telephone/fax numbers and name of submitter.

Submitted By: _____
Contractor's Representative Company Name

Address: _____ Email: _____

Tele.: _____ Fax: _____

Date: _____

Accepted By:

General Contractor Representative Date

Architect's Use Only

Accepted Accepted as Noted

Not Accepted Received Too Late

Comments:

By: _____
Ehresman's Representative

Date: _____

END OF SECTION

PART ONE - GENERAL

DESCRIPTION

SECTION INCLUDES

1. VOC RESTRICTIONS for product categories listed below under "DEFINITIONS."
2. ALL PRODUCTS OF EACH CATEGORY that are installed in the project must comply; the project goals do not allow for partial compliance.

SECTIONS RELATED

1. SUBMITTALS - SECTION 01300
2. LEED CERTIFICATION PROCEDURES - SECTION 01355
3. QUALITY CONTROL - SECTION 01400
4. INDOOR AIR QUALITY - SECTION 01734
5. MATERIAL AND EQUIPMENT - SECTION 01600

REFERENCES

GREEN SEAL GS-36 – Adhesives for Commercial Use; Green Seal, Inc.; 2013.

SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168; current edition;
www.aqmd.gov.

DEFINITIONS

VOC-RESTRICTED PRODUCTS: All products of each of the following categories when installed or applied on-site in the building interior:

1. ADHESIVES, sealants, and sealer coatings.
2. CARPET TILE.
3. PAINTS and coatings.
4. CABINET WORK.
5. COMPOSITE WOOD and agrifiber products used either alone or as part of another product.
6. OTHER PRODUCTS when specifically stated in the specifications.

INTERIOR OF BUILDING: Anywhere inside the exterior weather barrier.

ADHESIVES: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.

SEALANTS: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.

SUBMITTALS

SEE SECTION 01300 - Administrative Requirements, for submittal procedures.

EVIDENCE OF COMPLIANCE: Submit for each different product in each applicable category.

1. IDENTIFY EVIDENCE SUBMITTALS with the words "LEED Report".

PRODUCT DATA: For each VOC-restricted product used in the project, submit product data showing compliance, except when another type of evidence of compliance is required.

INSTALLER CERTIFICATIONS FOR ACCESSORY MATERIALS: Require each installer of any type of product (not just the products for which VOC restrictions are specified) to certify that either:

1. NO ADHESIVES, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of his products, or
2. THAT SUCH PRODUCTS used comply with these requirements.

QUALITY ASSURANCE

TESTING AGENCY QUALIFICATIONS: Independent firm specializing in performing testing and inspections of the type specified in this section.

PART TWO - PRODUCTS

MATERIALS

ADHESIVES AND JOINT SEALANTS: Provide only products having volatile organic compound (VOC) content not greater than required by South Coast Air Quality Management District Rule No.1168.

1. EVIDENCE OF COMPLIANCE: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.

AEROSOL ADHESIVES: Provide only products having volatile organic compound (VOC) content not greater than required by GreenSeal GS-36.

1. EVIDENCE OF COMPLIANCE: Acceptable types of evidence are:
 - a. Current GreenSeal Certification.

PAINTS AND COATINGS:

1. PROVIDE COATINGS that comply with the most stringent requirements specified in the following:
 - a. Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and Maintenance Coatings; www.otcair.org; specifically:
 - 1) Opaque, Flat: 50 g/L, maximum.
 - 2) Opaque, Nonflat: 150 g/L, maximum.
 - 3) Opaque, High Gloss: 250 g/L, maximum.
 - 4) Varnishes: 350 g/L, maximum.
 - b. USGBC LEED Rating System, edition as stated in Section 01355; for interior wall and ceiling finish (all coats), anti-corrosive paints on interior ferrous metal, clear wood stains and finishes, sanding sealers, other sealers, shellac, and floor coatings.
2. DETERMINATION OF VOC CONTENT: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
3. EVIDENCE OF COMPLIANCE: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.

CARPET TILE AND ADHESIVE: Provide products having VOC content as specified in Section 09685.

COMPOSITE WOOD AND AGRIFIBER PRODUCTS and Adhesives Used for Laminating Them: Provide products having no added urea-formaldehyde resins.

1. EVIDENCE OF COMPLIANCE: Acceptable types of evidence are:
 - a. Published product data showing compliance with requirements.

PART THREE - EXECUTION

FIELD QUALITY CONTROL

OWNER RESERVES THE RIGHT to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to the Owner.

ALL ADDITIONAL COSTS to restore indoor air quality due to installation of non-compliant products will be borne by Construction Manager / General Contractor.

END OF SECTION

01 700 CONTRACT CLOSEOUT

COMPLETION PROCEDURE

WHEN THE CONTRACTOR CONSIDERS that the Work is complete, he shall submit written certification that he has inspected the Work for compliance with the Contract Documents, equipment and systems have been tested in the presence of the Owner's representative and are operational, and the Work is completed and ready for final inspection.

1. SUBMIT CONTRACTOR'S WRITTEN PUNCH LIST with detail of items to be completed or corrected.

ONCE THE CONTRACTOR has submitted their list of items requiring correction (punch list), the Architect will schedule its punch list review and add it to the Contractor's list.

1. CONTRACTOR to initial and date next to each item on the list to assure that the Contractor has reviewed each item, and has verified that the work has been completed and/or corrected.
2. WHEN ALL OF THE ITEMS HAVE BEEN CORRECTED, the Contractor shall notify the Architect and request a review of the punch list to verify that each item has been corrected.

WHEN THE ARCHITECT CONSIDERS that the Work is acceptable, he will request the Contractor to make closeout submittals. The Contractor shall submit evidence that the Work complies with the Contract Documents including the following:

1. THE REQUIREMENTS OF GOVERNING AUTHORITIES, including the Certificate of Occupancy, and Certificates of Inspection for mechanical equipment and electrical equipment.
2. GENERAL CONDITIONS, including evidence of Payment Release of Liens, the certificate of Insurance for Products and Completed Operations.
3. PROJECT RECORD DOCUMENTS
4. OPERATING AND MAINTENANCE DATA, and Instructions to Owner's Personnel.
5. WARRANTIES AND BONDS.
6. KEYS AND KEYING SCHEDULE, per Section 08 710, Finish Hardware.

01 710 SUBMIT A FINAL STATEMENT OF ACCOUNTING to the Architect.

THE STATEMENT SHALL REFLECT all adjustments to the Contract Sum, including but not limited to previous Change Orders, Allowances, Unit Prices, and deductions for uncorrected Work. Submit the final Application for Payment. Include final Full Unconditional Waivers of Lien and Sworn Statements from each Contractor and major material and equipment suppliers.

01 715 FINAL CLEANING

PERFORM FINAL CLEANING leaving all areas in a condition that they can be occupied without further cleaning of any kind. Perform final cleaning using skilled, experienced workers under competent supervision, with appropriate cleaning materials.

1. ANY ADJACENT SURFACE damage during these operations shall be made good and restored to its condition prior to work starting.
2. STICKERS: Remove any from surfaces. Wash interior and exterior surfaces.
3. REMOVE GREASE, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from interior and exterior surfaces exposed to view.
4. WASH AND POLISH GLAZING, glazing frames and trim, and mirrors.
5. POLISH GLOSSY SURFACES to a clear shine.
6. WASH CONCRETE, tile and other finish floors. Broom-clean all unfinished floors. Rewax or repolish resilient flooring. Vacuum carpet, remove any stains, defects prior to move in.
7. CLEAN AND POLISH all wood and plastic laminate surfaces.
8. PERFORM AND INSPECT special cleaning for:
 - a. All plumbing fixtures, trim and equipment.
 - b. All grilles, registers, convertors and ductwork in systems used for temporary heat, and equipment.
 - c. All lighting fixtures and equipment.

9. BEFORE FINAL COMPLETION, or Owner occupancy, conduct an inspection of the interior and exterior surfaces, exposed to view, and all work areas, to verify that the entire Work is clean. Perform additional cleaning as required.

AT COMPLETION remove all waste materials, rubbish, tools, equipment, surplus materials, etc., and clean all exposed-to-view surfaces.

REMOVE all waste materials from the site and legally dispose of at public or private dumping areas.

01 720 PROJECT RECORD DOCUMENTS

PROMPTLY FOLLOWING AWARD of Contract, obtain from the Architect and maintain in a secure place at the site, one record copy of the Project Manual, Drawings, and Addenda. Add Change Orders and other Modifications to the Contract, Architect's Supplementary Instructions or written instruction, Approved Shop Drawings, Product Data and Samples, field test records, and construction photographs as they are issued. Do not use record documents for construction purposes.

RECORD THE INFORMATION concurrently with construction progress. Do not conceal any work until the required information is recorded. Legibly mark the record drawings to record actual construction, including locations of underground and internal utilities, referenced to surface improvements, field changes.

LEGIBLY MARK ADDENDA, Bulletins, Specifications to record manufacturer, trade name, catalog number, Supplier of each Product and item of equipment actually installed, changes made by Field Order or by Change Order.

AT CONTRACT CLOSE-OUT, deliver three (3) copies of the Record Documents to the Architect (two hard copies, one electronic).

01 730 OPERATING AND MAINTENANCE DATA

BINDERS SHALL BE COMMERCIAL QUALITY, with durable and cleanable plastic covers. Include a Table of Contents, neatly typed and in orderly sequence. Provide complete information for each item, including Product or work item; firm, with the name of the responsible principal, address and telephone number, and the scope, date of beginning, and duration of the warranty, bond or service maintenance contract.

PROVIDE INFORMATION for the Owner's personnel, giving the proper procedure in case of failure, and recommending precautions against occurrences which might jeopardize the validity of the warranty or bond.

SUBMIT three (3) copies of each type of manual (two hard copies, one electronic)

INSTRUCTION

INCLUDE FOR EACH PRODUCT, of the name, address and telephone number of the Subcontractor or other installer, the maintenance contractor as appropriate, the area of responsibility of each, and local source of supply for replacement parts.

FOR PRODUCT DATA, include only pertinent sheets. Clearly identify the specific product or part installed. Clearly identify the data applicable to the installation, and delete references to inapplicable information.

INCLUDE DRAWINGS as necessary to clearly illustrate relations of component parts. Include control and flow diagrams as applicable. Coordinate the drawings with the information in the Project Record Documents to assure correct illustration of the completed installation. Do not use Project Record Documents as maintenance drawings.

INCLUDE WRITTEN TEST PROCEDURES, as required to supplement product data. Provide a logical sequence of instructions for each procedure.

MATERIALS AND FINISHES

INCLUDE MANUFACTURER'S DATA, with catalog number, size, and composition, color and texture designations, and information required for re-ordering specially manufactured products.

INCLUDE INSTRUCTIONS FOR CARE AND MAINTENANCE

FOR MOISTURE-PROTECTION and weather-exposed products include manufacturer's data, giving full information on products, applicable standards, chemical composition, details of installation, and instructions for inspection, maintenance and repair.

INCLUDE ADDITIONAL REQUIREMENTS FOR MAINTENANCE data, as required by the respective Specification Sections.

EQUIPMENT AND SYSTEMS

DESCRIBE EACH UNIT and component part, with function, normal operating characteristics and limiting conditions, performance curves, engineering data and tests, complete nomenclature, and commercial number of all replaceable parts.

DESCRIBE OPERATING PROCEDURES, with start-up, break-in, routine and normal operating instructions, regulation, control, stopping, shut-down and emergency instructions, summer and winter operating instructions, and special operating instructions.

DESCRIBE MAINTENANCE PROCEDURES, for routine maintenance, "trouble-shooting," disassembly, repair and reassembly, and alignment, adjusting and checking. Include a recommended maintenance schedule. Include a lubrication schedule, giving types of lubricants, as applicable.

INCLUDE THE MANUFACTURER'S PARTS LIST, illustrations, assembly drawings and diagrams required for maintenance, with the predicted life of parts subject to wear, and a list of items recommended to be stocked as spare parts. Include a list of spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.

FOR CONTROLS, include the manufacturer's description of the sequence of operation and as-installed control diagrams.

FOR PIPING SYSTEMS, include as-installed piping diagrams, color-coded as applicable, and charts of valve tag numbers, with the location and function of each valve.

FOR WIRING SYSTEMS, include as-installed color-coded wiring diagrams, with circuit directories for panelboards as applicable.

PREPARE AND INCLUDE additional data when the need for such data becomes apparent during the instruction of the Owner's personnel. Provide additional requirements for operating and maintenance data where required under the various Specification Sections.

INSTRUCTION OF THE OWNER'S PERSONNEL

BEFORE FINAL INSPECTION or acceptance, fully instruct the Owner's designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment and systems.

BASE THE INSTRUCTION on the operating and maintenance manual. Review the contents of the manual in full detail to explain all aspects of operations and maintenance.

01 740 GUARANTEES, WARRANTIES, BONDS

COMPILE SPECIFIED WARRANTIES and bonds. Compile specified service and maintenance contracts in Binders. Review submittals to verify compliance with Contract Documents. Submit three (3) copies to Architect. (Two hard copies, one electronic)

1. EXPIRATION DATE shall be indicated.
2. CONTRACTOR'S WRITTEN GUARANTEE for the entire work shall be included.
3. PROVIDE WRITTEN WARRANTY for ONE (1) year from each subcontractor and from each major material supplier, and to include any extended warranty specified under the Specification Section.

END OF SECTION

PART ONE - GENERAL

WASTE MANAGEMENT REQUIREMENTS

OWNER REQUIRES that this project generate the least amount of trash and waste possible.

EMPLOY PROCESSES that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.

MINIMIZE TRASH/WASTE DISPOSAL IN LANDFILLS; reuse, salvage, or recycle as much waste as economically feasible.

OWNER MAY DECIDE to pay for additional recycling, salvage, and/or reuse based on Landfill Alternatives Proposal specified below.

REQUIRED RECYCLING, SALVAGE, AND REUSE: The following may not be disposed of in landfills or by incineration:

1. ALUMINUM AND PLASTIC BEVERAGE CONTAINERS.
2. CORRUGATED CARDBOARD.
3. WOOD PALLETS.
4. CLEAN DIMENSIONAL WOOD: May be used as blocking or furring.
5. LAND CLEARING DEBRIS, including brush, branches, logs, and stumps: See Section 02230 for use options.
6. CONCRETE: May be crushed and used as riprap, aggregate, sub-base material, or fill.
7. BRICKS: May be used on project if whole, or crushed and used as landscape cover, sub-base material, or fill.
8. CONCRETE MASONRY UNITS: May be used on project if whole, or crushed and used as sub-base material or fill.
9. METALS, INCLUDING PACKAGING BANDING, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
10. GLASS.
11. CARPET, CARPET CUSHION, carpet tile, and carpet remnants, both new and removed: DuPont (<http://flooring.dupont.com>) and Interface (www.interfaceinc.com) conduct reclamation programs.
12. WINDOWS, DOORS, and door hardware.
13. MECHANICAL AND ELECTRICAL equipment.
14. FLUORESCENT LAMPS (light bulbs).
15. ACOUSTICAL CEILING TILE and panels.

LEED CERTIFICATION for this project is dependent on diversion of 75 percent, by weight, of potential landfill trash/waste by recycling and/or salvage.

GENERAL CONTRACTOR shall submit periodic Waste Disposal Reports; all landfill disposal, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports.

GENERAL CONTRACTOR shall develop and follow a Waste Management Plan designed to implement these requirements.

METHODS OF TRASH/WASTE DISPOSAL that are not acceptable are:

1. BURNING ON THE PROJECT SITE.
2. BURYING ON THE PROJECT SITE.
3. DUMPING OR BURYING on other property, public or private.
4. OTHER ILLEGAL DUMPING or burying.
5. INCINERATION, either on- or off-site.

REGULATORY REQUIREMENTS: General Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

RELATED REQUIREMENTS

SECTION 01300 - Administrative Requirements: Additional requirements for project meetings, reports, submittal procedures, and project documentation.

SECTION 01500 - Temporary Facilities and Controls: Additional requirements related to trash/waste collection and removal facilities and services.

SECTION 01600 - Product Requirements: Waste prevention requirements related to delivery, storage, and handling.

SECTION 01700 - Execution Requirements: Trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

DEFINITIONS

CLEAN: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.

CONSTRUCTION AND DEMOLITION WASTE: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.

HAZARDOUS: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.

NONHAZARDOUS: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.

NONTOXIC: Neither immediately poisonous to humans nor poisonous after a long period of exposure.

RECYCLABLE: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.

RECYCLE: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.

RECYCLING: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.

RETURN: To give back reusable items or unused products to vendors for credit.

REUSE: To reuse a construction waste material in some manner on the project site.

SALVAGE: To remove a waste material from the project site to another site for resale or reuse by others.

SEDIMENT: Soil and other debris that has been eroded and transported by storm or well production run-off water.

SOURCE SEPARATION: The act of keeping different types of waste materials separate beginning from the first time they become waste.

TOXIC: Poisonous to humans either immediately or after a long period of exposure.

TRASH: Any product or material unable to be reused, returned, recycled, or salvaged.

WASTE: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

SUBMITTALS

SEE SECTION 01300 - Administrative Requirements, for submittal procedures.

LEED SUBMITTALS: Submit Landfill Alternatives Proposal, Waste Management Plan, and Waste Disposal Reports in accordance with procedures specified in Section 01355.

LANDFILL ALTERNATIVES PROPOSAL: Within 10 calendar days after receipt of Notice of Award of Bid, or prior to any trash or waste removal, whichever occurs sooner, submit a projection of trash/waste that will require disposal and alternatives to landfilling, with net costs.

1. SUBMIT TO ARCHITECT for Owner's review and approval.
2. IF OWNER wishes to implement any cost alternatives, the Contract Sum will be adjusted as specified elsewhere.
3. INCLUDE AN ANALYSIS of trash/waste to be generated and landfill options as specified for Waste Management Plan described below.
4. DESCRIBE AS MANY ALTERNATIVES to landfilling as possible:
 - a. List each material proposed to be salvaged, reused, or recycled.
 - b. List the proposed local market for each material.
 - c. State the estimated net cost resulting from each alternative, after subtracting revenue from sale of recycled or salvaged materials and landfill tipping fees saved due to diversion of materials from the landfill.

ONCE OWNER HAS DETERMINED which of the landfill alternatives addressed in the Proposal above are acceptable, prepare and submit Waste Management Plan; submit within 10 calendar days after notification by Architect.

WASTE MANAGEMENT PLAN: Include the following information:

1. ANALYSIS OF THE TRASH AND WASTE projected to be generated during the entire project construction cycle, including types and quantities.

2. LANDFILL OPTIONS: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
3. LANDFILL ALTERNATIVES: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.
4. MEETINGS: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
5. MATERIALS HANDLING PROCEDURES: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
6. TRANSPORTATION: Identify the destination and means of transportation of materials to be recycled; i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.

WASTE DISPOSAL REPORTS: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.

1. SUBMIT UPDATED REPORT with each Application for Progress Payment; failure to submit Report will delay payment.
2. SUBMIT REPORT on a form acceptable to Owner.
3. LANDFILL DISPOSAL: Include the following information:
 - a. Identification of material.
 - b. Amount, in tons or cubic yards, of trash/waste material from the project disposed of in landfills.
 - c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
 - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
4. RECYCLED AND SALVAGED MATERIALS: Include the following information for each:
 - a. Identification of material, including those retrieved by installer for use on other projects.
 - b. Amount, in tons or cubic yards, date removed from the project site, and receiving party.
 - c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
 - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - e. Certification by receiving party that the materials will not be disposed of in landfills or by incineration.
5. MATERIAL REUSED ON PROJECT: Include the following information for each:
 - a. Identification of material and how it was used in the project.
 - b. Amount, in tons or cubic yards.
 - c. Include weight tickets as evidence of quantity.
6. OTHER DISPOSAL METHODS: Include information similar to that described above, as appropriate to disposal method.

PART TWO - PRODUCTS

PRODUCT SUBSTITUTIONS

SEE SECTION 01600 - Product Requirements for substitution submission procedures.

FOR EACH PROPOSED PRODUCT SUBSTITUTION, submit the following information in addition to requirements specified in Section 01600:

1. RELATIVE AMOUNT OF WASTE PRODUCED, compared to specified product.
2. COST SAVINGS ON WASTE DISPOSAL, compared to specified product, to be deducted from the Contract Sum.
3. PROPOSED DISPOSAL METHOD for waste product.
4. MARKETS FOR RECYCLED waste product.

PART THREE - EXECUTION

WASTE MANAGEMENT PROCEDURES

SEE SECTION 01300 for additional requirements for project meetings, reports, submittal procedures, and project documentation.

SEE SECTION 01500 for additional requirements related to trash/waste collection and removal facilities and services.

SEE SECTION 01600 for waste prevention requirements related to delivery, storage, and handling.

SEE SECTION 01700 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

WASTE MANAGEMENT PLAN IMPLEMENTATION

MANAGER: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.

COMMUNICATION: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner and Architect.

INSTRUCTION: 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.

MEETINGS: Discuss trash/waste management goals and issues at project meetings.

1. PRE-BID MEETING.
2. PRE-CONSTRUCTION MEETING.
3. REGULAR JOB-SITE MEETINGS.

FACILITIES: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.

1. PROVIDE CONTAINERS as required.
2. PROVIDE ADEQUATE SPACE for pick-up and delivery and convenience to subcontractors.
3. KEEP RECYCLING and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.

HAZARDOUS WASTES: Separate, store, and dispose of hazardous wastes according to applicable regulations.

RECYCLING: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.

REUSE OF MATERIALS ON-SITE: Set aside, sort, and protect separated products in preparation for reuse.

END OF SECTION