



## **APPENDIX 5**

### **Supplementary General Conditions of Construction**



## SUPPLEMENTARY GENERAL CONDITIONS OF CONSTRUCTION

Where any article of the General Conditions of the Contract for Construction is supplemented in these Supplementary General Conditions, the original article shall remain in full force and effect and all supplementary provisions shall be considered as added thereto. Where any such article is modified, superseded or deleted here, provisions of such article not so specifically modified, superseded or deleted shall remain in full force and effect.

### 1.00 DEFINITIONS

Add the following

**Construction Manager** - Whenever the term "Contractor" is stated or referenced it shall mean the same as "Construction Manager".

**Contract Sum** - Whenever the term "Contract Sum" is stated or referenced it shall mean the same as "Guaranteed Maximum Price".

**Trade Contractor** - Whenever the term "Subcontractor" is stated or referenced it shall mean the same as "Trade Contractor".

**Guaranteed Maximum Price** - The term Guaranteed Maximum Price (GMP) shall be the maximum price to the University for the Project and shall include the Cost of Work, overhead and profit, construction contingency, the preconstruction services cost, and the cost incurred under the general conditions. The GMP shall be reviewed, approved and agreed to by University, Design Professional and Contractor. Under GMP agreements, a GMP Change Order will be executed following the provision of most preconstruction services.

### 4.00 RESPONSIBILITIES OF THE PARTIES

Add the following to 4.02.3

#### .1 Temporary Facilities

.a The Construction Manager shall be responsible for arranging and providing general services and temporary facilities as specified herein and as required for the Design Professional, the University, all Trade Contractors, Separate Construction Managers and Construction Manager's staff for the proper and expeditious prosecution of the Work, including, but not limited to, temporary offices and toilets; temporary storage; temporary electrical lighting and power; temporary voice and data communications, temporary water; temporary enclosures; temporary heating and ventilation; temporary openings; material hoists; temporary ladders, ramps and runways; temporary fire protection, protective coverings; ramps and runways; temporary fire protection, protective coverings; and construction sign(s). The Construction Manager shall, at its own expense but included within the Cost of the Work, make all temporary connections to utilities and services in locations acceptable to the University, Design Professional and local authorities having jurisdiction thereof; furnish all necessary labor and materials, and make all installations in a manner subject to the acceptance of such authorities and the Design Professional; maintain such connections; remove the temporary installation and connections when no longer required; and restore the services and sources of supply to proper operating conditions. All costs of said temporary facilities shall be a Cost of the Work.



.b The Construction Manager shall make all arrangements with the University for temporary electrical service to the Site, shall provide all equipment necessary for temporary power and lighting, and shall pay all charges for this equipment and installation thereof. The electrical service shall be of adequate capacity for all construction tools and equipment without overloading the temporary facilities and shall be made available to all trades. The Construction Manager shall furnish, install and maintain a temporary lighting system to satisfy minimum requirements of safety and security.

.c Temporary weathertight enclosures and temporary heating shall be provided by the Construction Manager as required pursuant to the Construction Schedule or Master Project Schedule to complete the Work on or before the Completion Date, to make the building weathertight and suitable working conditions for the construction operations of all trades. Under no circumstances shall the temperature be allowed to reach a level which will cause damage to any portion of the Work which may be subject to damage by low temperatures. The Construction Manager shall pay for all fuel, maintenance and attendance required in connection with the portable unit heaters without additional cost or expense to University. Any surface, interior or exterior, damaged by the use of these space heaters shall be replaced by new materials or be refinished to the satisfaction of the Design Professional and University without additional cost to the University.

.d All temporary equipment and conduits for same shall be in accordance with the applicable provisions of the governing codes. All temporary wiring and power conduits shall be maintained in a safe manner and utilized so as not to constitute a hazard to persons or property. All temporary equipment, wiring and conduits shall be completely removed after they are no longer necessary and prior to completion.

.e Where temporary facilities and associated utilities, and for utilities used in performance of this Agreement can be provided from existing University services, the University shall bear the cost of such utility consumption, and such costs shall not be included in the GMP. However, for conditions that require the Construction Manager to use electrical generators or equipment fueled by an independent fuel source, the Construction Manager shall bear all such costs which shall be included in the GMP.

Add the following to 4.02.12

#### **.1 Safety and Protection**

.a Construction Manager shall provide fences, pedestrian walks, barriers, etc. to ensure safety of the general public and Construction Manager's personnel or as directed by University.

.b Construction Manager will provide perimeter protection at wall and floor openings, elevator shafts, stairwells, and floor perimeters in accordance with OSHA requirements.

.c Combustible rubbish shall be removed daily and shall not be disposed of by burning on site. The entire premises and area adjoining and around the operation shall be kept in a safe and sanitary condition and free of accumulation of trash, rubbish, nuts, bolts, small tools, and other equipment not in use. Construction Manager is responsible to provide trash containers and fund the removal/disposal of construction debris and general trash.

.d Construction Manager will regularly ensure that 1) excess material/trash are removed from work sites; 2) passageways (e.g., sidewalks, hallways) are cleared of obstructions; 3) equipment is shut down and secured; and 4) lighted barricades are erected where necessary.



.e All existing means of egress, including stairways, egress doors, panic hardware, aisles, corridors, passageways, and similar means of egress shall, at all times, be maintained in a safe condition and shall be available for immediate use and free of all obstructions.

.f The space under the temporary trailer shall not be used for the storage or placement therein of flammable gases, liquids, or gas and liquid fuel powered equipment. This area shall be kept free of accumulations of any rubbish or trash.

.g In temporary trailers, all exit doors shall be open for egress whenever the unit is occupied. Draw bolts, hooks and other similar locking devices shall be prohibited on all egress doors.

.h On site storage of combustible or flammable liquids shall be limited to one day supply. Indoor storage of propane containers is prohibited.

.i Prior to working in confined spaces on campus, the Construction Manager must have its written Confined Spaces Program and Permit System reviewed by the University and the documents must meet minimum acceptable standards under the current OSHA/MIOSHA regulation(s). The Construction Manager must provide its own atmospheric testing, personal protection, ventilating and rescue equipment as required. The Construction Manager should seek information from University on any known hazards of the confined spaces to be entered. All manholes and utility tunnels are considered confined spaces.

.j Compressed gas cylinders belonging to Construction Manager must be properly segregated and secured (with chains or similarly reliable restraining devices) to wall or floor mounted support systems, cylinder storage racks etc., when not in transit. Protective caps must be in place during transit or when not in use.

.k Construction Manager must follow all of OSHA's lockout/tagout requirements of 29 CFR 1910.147, provide its own lockout/tagout supplies, and be able to demonstrate that its employees have received formal instruction in "lock-tag-try" procedures. Copies of Construction Manager's written Lockout/Tagout Program should also be available upon request.

.l Construction Manager may not use any University sinks, drains or catch basins for the washing of any equipment, tools or supplies, or the disposal of any liquids, (excluding consumable products and hand-soap/water) without the express permission of University. This restriction applies to all sinks (including water fountains) in laboratories, offices and maintenance areas. Additionally, no polluting or hazardous liquids (such as motor oils, cleaners, solvents, paints, diesel fuels, antifreeze, etc.) may be drained onto roads, parking lots, ditches, wetlands, dirt piles or other soil, or into storm or sanitary sewers.

.m Construction Manager transporting hazardous materials (e.g. reclaimed materials, chemicals, fuels, oils, concrete) to and from campus must follow all applicable DOT regulations. This includes proper shipping papers, placarding, material segregation and weight limits.

.n Construction Manager is also responsible for the proper collection, labeling, transporting, manifesting and disposal of polluting or hazardous wastes such as solvents, paints, oil or antifreeze (and rags contaminated with any of these materials), as required by State and Federal laws and regulations. Copies of all manifests should remain available for University review upon request. Under no circumstances may hazardous wastes be disposed of in University-owned dumpsters, waste containers, drains or sewers, or drained onto roads, parking lots, ditches, wetlands, dirt piles or other soil.



.o Neither the University nor the Design Professional is responsible for conducting safety inspections or observations, but may make recommendations concerning safety to the Construction Manager.

.p Fire Protection

(1) All reasonable precautions shall be taken against fire throughout all the Construction Manager's and Trade Contractors' operations. Flammable material shall be kept at an absolute minimum. Any such materials shall be properly handled and stored.

(2) Construction practices, including cutting and welding, and protection during construction shall be in accordance with the applicable published standards. During such operations the Construction Manager shall provide a fire watch person. The Construction Manager shall provide a sufficient number of approved portable fire extinguishers, distributed about the Project and in cold weather, non-freeze type portable fire extinguishers shall be used.

(3) Gasoline and other flammable liquids shall be stored in and dispensed from Underwriter's Laboratories listed safety containers in conformance with the National Board of Fire Underwriters recommendations and applicable State laws. Storage, however, shall not be within the building.

4) The Construction Manager shall schedule the Work so that the permanent standpipe system shall be installed and made operable at the earliest possible date. At such time, the Construction Manager shall furnish sufficient hose to provide adequate coverage.

5) All tarpaulins that may be used for any purpose during construction of the Work shall be made of material which is water and weather resistant and fire retardant treated. All tarpaulins shall be Underwriters' Laboratories labeled with flame spread rating of fifteen (15) or less and shall be approved prior to use by any local fire marshal.

Add the following to 4.02.13

Hazard Communication: University requires the Construction Manager to maintain at its job site(s) the Material Safety Data Sheets (MSDS) for all hazardous materials brought onto campus. Copies of these MSDS must also be provided to the University no less than two weeks prior to the onset of activities. Failure to submit MSDS may result in suspension of Work activities until the MSDS are obtained. If Construction Manager is to work with hazardous products, it shall notify and update the Project Manager of a) proposed work schedules, b) what to expect in terms of noises/odors, and c) how to access MSDS. The Construction Manager must also be able to demonstrate that its employees have received "Haz Com" (i.e. Michigan Right-to-Know), and thereby possess a broad understanding of "MSDS language." Construction Manager-owned chemical containers must be labeled with the product name and hazards.

Hazardous Materials: In addition to complying with the Michigan Right-to-Know Law, the Construction Manager must use and store hazardous materials in accordance with all local, state and federal regulations. Special attention must be paid to the segregation of incompatible materials and the handling/storage of flammable and/or volatile materials. At the end of each work day, hazardous materials must be properly secured, stored in OSHA approved containers, and placed in locations authorized by the University or removed from University's property.

Add the following to 4.02.21



## **.1 Excavation Policy**

**The policy prescribed herein shall be adhered to for all earth excavation, manual or power, on the University campus that penetrates the surface of the soil by a depth of 6 inches or greater.**

### **.a Non-emergency Situation**

- (1) In non-emergency situations (i.e., scheduled maintenance or construction) the Construction Manager shall contact the University a minimum of three weeks in advance of the scheduled excavation.
- (2) The Construction Manager shall contact Miss Dig five days prior to the scheduled excavation, to ascertain and stake the actual location for all utilities within 50 feet of the limits of the proposed excavation. Actual staking shall be performed not more than three (3) days prior to the excavation.
- (3) Excavation shall commence only with the approval of the University after a complete examination of the site utility drawings and a field observation of the staked site.

### **.b Emergency Situation**

- (1) In an emergency situation (i.e., loss of services on campus or to a building), the Construction Manager shall immediately contact the University Representative, examine the site utility drawings to determine the potential interferences, and contact Miss Dig and private stakers, if appropriate, to ascertain and stake the actual location of all utilities within 50 feet of the limits of the proposed excavation. The Construction Manager shall also immediately contact Consumers Power Company, in addition to Miss Dig, upon a natural gas line failure.
- (2) Contact the University's Public Safety Department at 577-2222.
- (3) No attempt shall be made to repair a gas line leak or break. Wait for the Consumers Energy or Co-Energy crew. However, flexible gas line may be folded over to reduce gas leakage, or bent upward to prevent gas from following pipe into building.
- (4) Excavation shall commence only with the approval of the University who will grant approval only after a complete examination of the site utility drawings and a field observation of the staked site.

### **.c Pumping and Draining**

The Construction Manager shall provide and maintain a temporary drainage system and pumping equipment as required to keep all excavation areas within the Site free from water from any source. As the Work progresses, all water shall be removed from basement areas, tunnels, pits, trenches and similar areas as required for proper performance of the Work and to prevent damage to any part of the construction utility. Permanent sump pumps shall not be used for this purpose; however, the Construction Manager may install temporary pumps in the sump pits until the permanent pumps are installed, providing that it cleans sump pits and drain lines satisfactorily after temporary use. The Construction Manager shall provide and maintain all pumping and draining equipment as required for the installation of all underground piping and utility conduit systems. Pumping and draining shall be performed in a manner to avoid endangering concrete footings or any adjacent construction or property. Such methods shall be subject to the review of the Design Professional.



.d Post-Excavation

- (1) Provide appropriate pipe protection (wraps, and/or cathodic protection) as originally installed.
- (2) Provide backfill material and compaction in 12-inch lifts to a 95% MDD.
- (3) Backfill material shall be free of all rocks in excess of five inches and deleterious materials and rubbish of any type.
- (4) Provide plastic tape trace 24" (12" for shallow trenches) above all utilities indicating utility type by MISS DIG color code and name defined as follows:

<u>Utility</u>	<u>Color</u>	<u>Lettering</u>
Electric	Red	Elect
Oil/Natural Gas	Yellow	Gas
Telephone	Orange	Tele
Cable TV	Brown	TV
Water	Blue	Water
Steam	Yellow	Steam
Sewer	Green	Sewer
- (5) Return grade to pre-excavation condition.

Add the following to 4.05.1

**The insurance furnished by the Construction Manager under this Article 4.05.1 shall provide coverage not less than the following:**

- .1 Workers compensation:
  - (a) State: Statutory
  - (b) Applicable Federal Statutory
  - (c) Employer's Liability
    - \$1,000,000 per Accident
    - \$1,000,000 Disease, Policy Limit
    - \$1,000,000 Disease, Each Employee
- .2 Commercial General Liability (including Premises-Operations; Independent Construction Managers' Protective; Products and Completed Operations; Broad Form Property Damage):
  - (a) Bodily Injury:
    - \$1,000,000 Each Occurrence
    - \$2,000,000 Aggregate
  - (b) Property Damage:
    - \$1,000,000 Each Occurrence
    - \$2,000,000 Aggregate
  - (c) Product and Completed Operations to be maintained for three (3) years after final payment
    - \$2,000,000 Aggregate





- (d) Property Damage Liability Insurance shall provide X,C and U coverage.
- (e) Broad Form Property Damage Coverage shall include Completed Operations.
- .3 Contractual Liability:
  - (a) Bodily Injury:
    - \$1,000,000 Each Occurrence
    - \$1,000,000 Aggregate
  - (b) Property Damage:
    - \$1,000,000 Each Occurrence
    - \$1,000,000 Aggregate
- .4 Personal Injury, with Employment Exclusion deleted:
  - \$1,000,000 Aggregate
- .5 Business Auto Liability (including owned, non-owned and hired vehicles):
  - (a) Bodily Injury
    - \$1,000,000 Aggregate
    - \$1,000,000 Each Occurrence
  - (b) Property Damage
    - \$1,000,000 Each Occurrence
- .6 If the General Liability coverages are provided by a Commercial Liability policy, the:
  - (a) General Aggregate shall be not less than \$1,000,000 and it shall apply, in total, to this Project only.
  - (b) Fire Damage Limit shall be not less than \$1,000,000 on any one Fire.
  - (c) Medical Expense Limit shall be not less than \$1,000,000 on any one person.
- .7 Umbrella Excess Liability:
  - \$5,000,000 over primary insurance
  - \$10,000 retention for self-insured hazards each occurrence
- .8 Builder's Risk Insurance in the amount equal to the Contract Sum.

Add the following to 4.12

Elevator shafts, electrical closets, pipe and duct shafts, chases, furred spaces and similar spaces which are generally unfinished, shall be cleaned by the Construction Manager and left free from rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt and dust before preliminary inspection of the Work.

All areas of the Project in which painting and finishing work is to be performed shall be cleaned throughout just prior to the start of this work, and these areas shall be maintained in satisfactory condition for painting and finishing. This cleaning shall include the removal of trash and rubbish from these areas;





broom cleaning of floors; the removal of any plaster, mortar, dust and other extraneous materials from all finished surfaces, including but not limited to, all exposed structural steel, miscellaneous metal, woodwork, plaster, masonry, concrete, mechanical and electrical equipment, piping, duct work, conduit, and also all surfaces visible after all permanent fixtures, induction unit covers, convector covers, covers for finned tube radiation, grilles, registers, and other such fixtures or devices are in place.

In addition to all cleaning specified above and the more specific cleaning which may be required, the Project shall be prepared for occupancy by a thorough final cleaning throughout including washing or cleaning of all surfaces on which dirt or dust has collected. The glass and curtain wall shall be washed and cleaned on both sides by a window cleaning subcontractor specializing in such work. Construction Manager shall, at University's request, delay such washing of exterior surfaces to such time as requested by University. All equipment shall be new, in an undamaged, bright clean condition. Recleaning will not be required after the Work has been inspected and accepted unless later operations of the Construction Manager, in the opinion of the University, make re-cleaning of certain portions necessary.

## **5.00 INTERPRETATION OF AND ADHERENCE TO CONTRACT REQUIREMENT**

Add the following to 5.04.1

### **.1 Construction Manager Requirements**

- .a Signature: Each item submitted shall be thoroughly reviewed by the Construction Manager and have a stamp or note describing the Construction Manager's action, signed by the person authorized by the Construction Manager to do the checking with that person's name clearly printed.
- .b Construction Manager Responsibility: Construction Manager shall review each submittal for completeness, conformance to the Contract Documents and coordination with other parts of the Work and the Construction or Master Project Schedule. By providing and submitting to the Design Professional shop drawings, product data, warranties and samples, the Construction Manager is representing that he has determined and verified (a) the availability of all materials, and (b) field measurements and field construction criteria related thereto, and (c) that he has checked and coordinated the information contained within such submittals with the requirements of the Work, the Contract Documents and the Construction or Master Project Schedule and that such shop drawings, samples, warranties and data conform to the Contract Documents.
- .c Limited Acceptance by University and Design Professional: Acceptance is for general design only. Quantities, size, field dimensions and locations are some of the required characteristics which are not part of the acceptance and will not be checked. Accordingly, the limited acceptance shall in no way relieve the Construction Manager from his obligation to conform his work to required characteristics and to the requirements of the Contract Documents.
- .d Delays: The Design Professional may return incomplete submittals with no action taken. The Construction Manager shall have no claim for any damages or for an extension of time due to delay in the Work resulting from the rejection of materials or from the rejection, correction, and resubmittal of Shop Drawings, samples and other data, or from the untimely submission thereof.

### **.2 Approvals**

The Design Professional's approval shall not indicate approval of dimensions, quantities or fabrication processes unless specific notations are made by the Design Professional regarding same. The



Design Professional will check one of the following notations on the Shop Drawing and Sample Review Stamp:

- .a "REVIEWED-NO EXCEPTIONS NOTED", indicating final action by the Design Professional. When reviewing resubmitted shop drawings the Design Professional assumes that there are no revisions from the previous submittal, except as provided by 5.04.1 and his review of resubmittals is only for the corrections requested with the approval of the balance of the shop drawing being based on the original submission. Where the Construction Manager directs specific action to revisions, as provided by 5.04.1 the approval includes these also.
- .b "REVIEWED WITH CORRECTIONS NOTED", indicating final action by the Design Professional with the same conditions as "REVIEWED-NO EXCEPTIONS NOTED". Unless he takes exception to the corrections noted, the Construction Manager may begin that portion of the Work for which the shop drawing was required.
- .c "REVISE AND SEND RECORD COPY", requiring that the Design Professional be sent a copy of the revised shop drawing in accordance with the noted corrections, at the same time it is issued for the Work.
- .d "NOT APPROVED-RESUBMIT", indicating that the Construction Manager shall not begin that portion of the Work until the reason indicated for disapproval has been corrected and the revised shop drawing submitted, reviewed and approved by the Design Professional.
- .e "NO ACTION REQUIRED", indicating that CONTRACT DOCUMENTS do not require the Design Professional to review or take any action with this submittal.
- .f Where more than one action has been checked, each shall apply to that portion of the shop drawing for which the action is indicated.

## **8.00 PAYMENT AND COMPLETION**

Add the following to 8.01

### **8.01.1 Monthly Payment Applications**

Each month at the first scheduled meeting the Construction Manager shall distribute, in triplicate, draft copies of the proposed Payment Application for review and comment. The review, comment and mutual concurrence will be an agenda item at that meeting. The Construction Manager will prepare the formal Application for submission from the comments made on the Draft and will present the formal application as provided for herein.

### **8.01.2 Offsite Materials**

If an Application for Payment is made for materials not installed in the Work, but suitably stored off-site at a location acceptable to the University's Representative, such application shall be accompanied by legally acceptable paid invoices or bills of sale and copies of delivery tickets, signed by the Construction Manager, indicating the Construction Manager verified that the materials shown on the delivery tickets are at the location accepted by the University and are adequately insured. Failure of the Construction Manager to furnish paid invoices, bills of sale or proof of insurance shall be cause for withholding such amounts from payment until such paid invoices or bills of sale have been received by the University. The University reserves the right to examine the stored items prior to payment.



**Add the following to subparagraph 8.03**

The following submittals shall be bound in 7 sets:

**.1 Project Closeout Documents**

- .a The Construction Manager shall submit to the Design Professional, a written guarantee, which shall be in accordance with Section 8.04 and such additional guarantees, in writing, as are required by the Specifications.
- .b The Construction Manager shall submit complete instruction for the care and maintenance of all finish materials under the contract, including, but not limited to floor finishes and coverings, wainscot and wall finishes, acoustical treatment, metal finishes, painted surfaces, flooring, hardware, and finishes on mechanical and electrical equipment. Instructions shall contain the manufacturer's or supplier's recommendations with respect to cleaning agents, preservative treatment and such other instructions as may be beneficial to the maintenance, usage, appearance and durability of the product. The recommendations shall further contain cautions on the use of certain cleaners and coatings which may be detrimental to the product.
- .c The Construction Manager shall prepare and submit operating and maintenance instructions, coordination drawings, and shop drawings for all mechanical and electrical equipment, and other special items, as called for in the specifications.
- .d All of the above described documents shall be checked by Construction Manager for conformance with the specifications and shall be submitted in uniform size, bound and indexed for cross-reference.
- .e The Construction Manager shall also submit "As-Built" drawings as specified in Section 4.11.
- .f Copies of all "Attic Stock" transmittals signed by appropriate University personnel accepting the attic stock material.

**10.00 MISCELLANEOUS**