

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS – CONSTRUCTION MANAGER EDITION

PART 1 - GENERAL

1.1 Summary:

- A. Provide temporary facilities and controls needed for Work including:
 - 1. Temporary utilities such as heat, water, electricity, and telephone;
 - 2. Field Offices and Sheds;
 - 3. Sanitary facilities;
 - 4. Enclosures such as tarpaulins, barricades, and canopies;
 - 5. Temporary fencing of construction site;
 - 6. Project sign;
 - 7. Housekeeping;
 - 8. Temporary fire protection;
 - 9. Rodents;

1.2 Related Sections:

- A. Documents affecting Work of this Section include General Conditions, and Sections in Division 1 of these Specifications.
- B. Except that equipment furnished by subcontractors shall comply with requirements of pertinent safety regulations, such equipment normally furnished by individual trades in execution of their own portions of Work is not part of this Section.
- C. Permanent installation and hookup of the various utility lines are described in other Sections.
- D. Comply with requirements in Division 01 Section "Indoor Air Quality Management."

PART 2 - PRODUCTS

2.1 Utilities:

- A. Cold Weather Protection and Temporary Heat:
 - 1. At Contractor's expense cold weather protection, temporary heat and fuel, and powered ventilation will be provided as necessary to carry on Work during inclement weather, to protect Work and materials against injury from dampness and cold, to dry out building and to provide suitable conditions for installation and curing of materials until final acceptance. Equipment for heating shall be U.L. approved and shall have automatic temperature controls.
 - 2. Refer to requirements in other sections of specifications for temperatures to be provided and maintained for installation and curing under various trades. Method of heating and type of fuel and equipment used shall be subject to approval by Owner, subject to all code requirements and approved by Owner's or Contractor's insurance

company. Open flame type heaters are not permitted after building is enclosed. Permanent heating system for building shall be used to provide temporary heating, as hereinafter specified.

3. Heating requirements during construction are divided into "Cold Weather Protection" and "Temporary Heat".
4. Contractor shall maintain service for occupied areas and equipment in use.

B. Cold Weather Protection:

1. Cold Weather Protection shall be required from start of Project up to the time when the Work is entirely closed in and the heating apparatus is in permanent position, ready for operation on a temporary basis, by Contractor. Work shall include protection of Work exposed to elements against adverse dampness and cold, by covering, enclosing, and heating materials and Work under construction, and providing suitable working conditions for trades employed on Work. Cold weather protection shall be provided by Contractor at expense.

C. Temporary Heat:

1. Temporary heat shall include period when heating is required from time Work is entirely closed in and heating apparatus is in permanent position and ready for operation, until building and equipment is accepted by Owner.
2. Temporary heating may be provided from permanent heating system when necessary to prevent freezing within building, to dry out building and to provide suitable working conditions for installation and curing of materials. A temperature of not less than 50 degrees F. nor more than maximum design temperatures shall be maintained throughout entire building. Heat during non-working hours shall be provided when required by status of Work.
3. Contract Price shall include cost of necessary labor and operating personnel required to operate heating system and provide temporary heat. Cost of fuel and electric power for operating system shall be borne by Contractor.

D. Use of permanent heating equipment:

1. Installation of permanent heating equipment shall be done as soon as possible. If permanent electric service is not yet available, Contractor shall install temporary service of proper characteristics for operation of heating plant. Temporary connections, controls and other arrangements shall be installed to permit most effective use of heating system, or parts thereof. Contractor shall be responsible for use of permanent heating system for purposes described and shall pay costs in connection therewith. Use shall not relieve Contractor of responsibility to turn over system to Owner in perfect condition on completion of project, nor shall it shorten stipulated guarantee period. Every effort shall be made to protect permanent heating equipment from damage by dust and airborne particles.

E. Temporary Water Service:

1. Temporary water (New facilities):
 - a. Contractor shall make the necessary arrangements to provide water required during construction period. Contractor shall have new water service set up in their name. Water bills for project shall be paid by Contractor for period from beginning of Work until building is occupied by Owner. When date is established that Owner assumes responsibility for account, Contractor shall notify utility company and arrange to have meter read and account transferred to Owner. Contractor is responsible for charges incurred until

account has been properly transferred. Any costs for reading or transferring account shall be borne by Contractor.

2. Temporary water (Renovation and/or additions where facility is vacated):
 - a. Contractor may use existing service and meter. Within 15 calendar days of Notice to Proceed, Contractor shall have meter read and account transferred to its name. Contractor shall pay water bills until Owner accepts building or agrees to assume responsibility for water bills. When date is established that Owner assumes responsibility for account, Contractor shall notify utility company and arrange to have meter read and account transferred to Owner. Contractor is responsible for charges incurred until account has been properly transferred. Costs for reading or transferring account shall be borne by Contractor.
3. Temporary water (Renovation and/or addition where facility remains occupied by Owner):
 - a. Owner shall provide and pay utility bills. Contractor shall be responsible for extensions as necessary for the completion of Contract and to maintain service in occupied areas.

F. Temporary Electric Service:

1. Temporary electric (New Facilities):
 - a. Contractor shall make necessary arrangements and provide temporary electric service and lighting required during entire construction period. Account will be set up in Contractor's name. Metered cost of electricity used shall be borne by Contractor for period from beginning of Work until building is occupied by Owner. When date is established that Owner assumes responsibility for account, Contractor shall notify utility company and arrange to have meter read and account transferred to Owner. Contractor is responsible for charges incurred until account has been properly transferred. Costs for reading or transferring account shall be borne by Contractor.
 - b. Electric service shall be of sufficient capacity and characteristics to supply proper current for various types of construction tools, motors, welding machines, lights, heating plant, air conditioning system, pumps, and other Work required. Necessary temporary wiring, panel boards, outlets, switches, lamps, fuses, controls and accessories, shall be provided. A sufficient number of electric outlets shall be provided; locate outlets so that 50 ft. long extension cords will reach Work requiring light or power. Temporary light shall be based on one 200-watt lamp for each 1000 square feet of floor area, with adequate lighting in stair wells and corridors. Materials used for temporary service shall not be used in permanent system unless specific approval is given by Construction Manager and Architect/Engineer.
2. Temporary electric (Additions and renovation projects where facility is vacated):
 - a. Existing electrical service and meter may remain. Within 15 calendar days of Notice to Proceed, Contractor shall have meter read and account transferred to its name. Metered cost of electricity used shall be borne by Contractor for period from beginning of Work until building is occupied by Owner. When date is established that Owner assumes responsibility for account, Contractor shall notify utility company and arrange to have meter read and account transferred to Owner. Contractor is responsible for charges incurred until account has been properly transferred. Costs for reading or transferring account shall be borne by Contractor.

3. Temporary electric (Additions and renovation projects where Owner continues to occupy facility):
 - a. Owner shall make existing service available and pay for electricity used. Contractor shall be responsible for necessary extensions and temporary lines required to complete Contract. Contractor shall maintain service for occupied areas and equipment in use.

G. Temporary Telephone Service:

1. At Contractor's expense, a jobsite telephone to which Owner and Architect and their representatives may have free use and access during working hours while making calls in regard to Project shall be installed and maintained. Calls, including long distance calls within Washington metropolitan area, shall be at expense of Contractor. At all times, Contractor shall maintain a separate dedicated line with a facsimile machine.
2. If applicable, at Contractor's expense, a dedicated telephone line for Building Automation System (BAS) during construction shall be installed and maintained. Line shall be extended to location of BAS Building Controller. This line shall be used for dial-in purposes only, and therefore, will not require long-distance service. This line shall be installed and active at least 30 days prior to start-up of any mechanical equipment. Coordinate installation time and location with BAS (Section 15950).

2.2 Field Offices and Sheds:

A. Field Offices:

1. Contractor shall provide and maintain a suitable temporary field office at project site for its own and representatives of Owner and Architect. Office shall be provided with adequate heat, air conditioning for progress meetings, a ventilating fan, electric lighting, telephone, file rack for storage of drawings, counter top for drawings references, storage shelves, a table, and seating for a minimum of 18 persons, in addition to furnishings required by Contractor. Locate one 10" outdoor type thermometer outside door. Locate office at location approved by Architect. Temporary electric and telephone connections to field office will be made by Contractor. In vacated renovation projects, existing building space may be considered for these needs, but is not guaranteed.

B. Owner's Field Offices:

1. Provide a reasonably new, insulated and weather tight, prefabricated, or mobile temporary office, for Owner's exclusive use.
2. For this Project, office shall be approximately 10-feet by 40-feet, and shall be similar to Williams Scotsman Mobile, divide approximately 1/3: 2/3.
3. Provide lockable entrance(s) with dual locks, operable windows covered with security bars or expanded metal, a serviceable finish, and ADA compliant access steps and handrails. Office shall include one 4-foot tack board, first aid kit, outdoor/indoor recording thermometer), and two telephone lines.
4. Provide and maintain adequate heat, air conditioning, fluorescent lighting, electrical receptacles, and four (4) modular telephone jacks (one at each desk surface and one at sloped plan review table connected to one outside line and one outside line and jack for connection to a facsimile transceiver), located by Owner. Telephone service to Owner's field office shall be paid by Contractor.

5. Office equipment shall include three telephones (one desk type with speaker, one wall type with a 15-foot cord, and one cordless phone), one plain paper facsimile/copy machine, and one answering/voice mail machine with remote message retrieval and service or service contracts. Furnish a rolling/adjustable drafting stool, sloped plan table (min. 36-inches deep and 8-feet long) with extra light, one swing-arm plan storage rack with ten hangers, one locking 4-drawer (legal size) file cabinet, and four rolling chairs. Equipment, except file cabinets, shall become Contractor's property at Final Completion. File cabinet will become property of Owner.
6. Provide maintenance of Owner's temporary office including weekly cleaning and sewage disposal. Phone hookup and long distance service and bills and supplies for facsimile/copy machine shall be paid by Contractor.
7. If it becomes necessary during the progress of construction to relocate Owner's field office and toilet facility, notify the Owner's representative, at minimum, 10-days prior to planned move, and complete move with associated re-connections at Contractor's expense within 48-hours.

C. Sheds:

1. Contractor shall provide and maintain such additional offices, storage sheds and other temporary buildings or trailers on project site as required for its own use. Locations of sheds and trailers shall be approved by Owner, Construction Manager and Architect. In vacated renovation projects, existing building space may be considered for these needs, but is not guaranteed.

2.3 Sanitary Facilities:

A. Temporary Toilets (New project and renovations and/or addition where facility is vacated):

1. Contractor shall provide and maintain an adequate number of approved prefabricated temporary toilets with proper enclosures as necessary for use of workmen. Keep toilets clean and comply with applicable health and sanitary regulations.
2. When ready, Contractor shall designate certain new toilet facilities in building to be used by workmen. Contractor shall be responsible for seeing that use does not interfere with construction and shall keep facilities in clean and sanitary condition.

B. Temporary Toilets (Vacated renovations projects):

1. Contractor may use existing fixtures provided they are properly maintained and acceptable to Owner.

2.4 Enclosures:

- A. Provide and maintain for duration of construction scaffolds, tarpaulins, canopies, warning signs, steps, platforms, bridges, egress doors and other temporary construction necessary for proper completion of Work in compliance with pertinent safety and other regulations. Security, emergency egress, fire alarm and suppression systems shall remain operational in occupied areas.

2.5 Temporary Fencing:

- A. Provide and maintain for duration of construction a temporary fence of design, type and extent needed to prevent entry onto Work site including areas and portions thereof by unauthorized persons.

2.6 Temporary Signs:

- A. Prior to start of construction, secure from Architect at Architect's office two of Architect's standard signs. Mount at the job site where directed by Architect.
- B. Upon completion of the Work, demount Architect's signs and return them to Architect's office.
- C. Except as otherwise specifically approved by Architect, do not permit other signs or advertising on job site.

2.7 Housekeeping:

A. Fire protection during construction:

- 1. Fire extinguishers suitable for fire hazards will be provided at convenient accessible locations during construction.
- 2. Provide each storage location with at least one approved portable fire extinguisher having a rating of not less than 20 - B:C.
 - a. Place portable extinguishers rated not less than 2A so that maximum travel distance to the nearest exit shall not exceed 100 feet.
- 3. Avoid accumulation of flammable debris and waste within building and vicinity. Avoid large and unnecessary accumulations of combustible forms and form lumber. Keep lumber stacked in an orderly manner.
- 4. Contractor will not store flammable or volatile liquids in open or in small detached structures or trailers. Liquids having low flash points being used within building must be stored only in approved safety cans. Contractor shall supervise closely storage of paint materials and other combustible finishing and cleaning products and not permit oily rags to be stored in closets or other tight permanent spaces.
- 5. Prohibit smoking in vicinity of hazardous operations and locations. Post suitable "No Smoking" signs in these areas.
- 6. Closely supervise welding and torch cutting operations near combustible materials with a fire watch.
- 7. Supervise locations and operation of temporary portable heating units and fuel.
- 8. Use only fire-resistant building paper, plastic sheet, and tarpaulins for temporary protection.
- 9. Do not store combustible material outdoors within 10 feet of a building or structure.
- 10. Do not use gasoline for cleaning within building under any circumstances.
- 11. Take other precautions suitable for hazardous conditions at the site to prevent fire.

B. Burning

- 1. Do not burn any trash or other material on site.

2.8 Temporary Fire Protection:

- A. Procedural Agreement between Department of Fire and Rescue Services and Montgomery County Board of Education for effective fire and life safety code application and enforcement

in Montgomery County Public Schools is incorporated in these Specifications by reference. Those requirements which pertain to Contractor's Work shall be incorporated into this Contract.

2.9 Rodents

- A. General: In addition to specific rodent control measures specified below, take necessary precautionary measure to keep job site free from rodents during construction operations. Food scraps and other debris attractive to rodents shall be put in containers and disposed of at end of each working day. Upon Substantial Completion, deliver a rodent pest free Project to the Owner.
- B. Prior to the start of construction, establish and maintain a rodent extermination program using recognized rodent control measures in compliance with Montgomery County Health Department regulations.

PART 3 – EXECUTION

3.1 Maintenance and Removal:

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of Work.
- B. Remove such temporary facilities and controls as rapidly as progress of Work will permit, or as directed by Owner or Architect.

END OF SECTION