

SECTION 01 50 00**CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS****PART 1 - GENERAL****1.1 REQUIREMENTS INCLUDED**

- A. Furnish, install and maintain temporary utilities required for construction, remove on completion of Work.
- B. Provide temporary personnel traffic and materials handling equipment and facilities required for construction, remove at completion of construction.
- C. Provide construction aids, inspection aids and equipment required to facilitate execution of the Work.
- D. Provide and maintain lighted barriers for the protection of personnel and materials in accordance with the Drawings and requirements of applicable codes and regulations.
- E. Provide and maintain temporary storage facility on-site for the storage of salvaged products to be reused in the Work of this Contract.
- F. Remove construction facilities and temporary controls at completion of project. Restore site to original condition.
- G. Provide and maintain temporary construction partitions for proper phasing of work. Remove as required by phasing at end of Contract.

1.2 RELATED REQUIREMENTS

- A. Section 01 01 00: Summary of Work.
- B. Section 01 04 50: Cutting and patching.
- C. Section 09 90 00: Painting.

1.3 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and local codes and regulations and with utility company requirements.

PART 2 - GENERAL

2.1 MATERIALS, GENERAL

- A. Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.
- B. Provide warning signs to help prevent damage and injury.
- C. Should it become necessary to remove safety items it shall be the Contractors responsibility to replace the item immediately, in conformance with applicable regulations.
- D. Wood materials used in barricades and barriers within the building and in material storage areas shall be fire-retardant.

2.2 TEMPORARY ELECTRICITY AND LIGHTING

- A. Owner is to pay for temporary power used during construction as available in the existing building. Contractor is to verify the voltage/amperage and available circuitry of the existing building electrical system. The Contractor shall provide and pay for all power required for construction activities not available in the existing building. Contractor is to arrange with utility company and pay for tap to provide service required for power and lighting of any and all construction trailers (if any).
- B. Contractor is to install circuit and branch wiring as required at Contractor's expense, with area distribution boxes located so that power and lighting is available throughout the construction by the use of construction-type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.

2.3 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation of materials, and to protect materials and finishes from damage due to temperature or humidity.
- B. Provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors or gases.
- C. Portable heaters shall be standard approved units complete with controls.

- D. Pay all costs of installation, maintenance, operation and removal, and for fuel consumed.
- E. Open flame heating equipment is not permissible under any circumstances.

2.4 TEMPORARY WATER

- A. Owner will pay for temporary water used for construction purposes as is available in the existing building. Contractor is to verify availability, quantity and type of water in the existing building, and to provide and pay for any additional water service or requirements for construction activities not available in the existing building.
- B. Install branch piping with taps located so that water is available throughout the construction by the use of hoses. Protect piping and fittings against freezing.

2.5 TEMPORARY TELEPHONE SERVICE

- A. Arrange with local telephone service company and pay for installation to provide direct line telephone service at construction site for use of personnel and employees.
- B. Pay all costs for installation, maintenance and removal, and service charges for local calls. Toll charges shall be paid by the party who places the call.

2.6 TEMPORARY SANITARY FACILITIES

- A. Contractor's employees are to use existing restroom within existing building that is designated by the Owner for the Contractor's use. Contractor is to clean and maintain this restroom and restore it to original condition upon completion of the project.

2.7 TEMPORARY FIRE PROTECTION

- A. Take necessary precautions in welding or cutting operations to keep work area free of combustible materials. Do not use welding equipment around flammable liquids or vapors.

2.8 TEMPORARY SIGNAGE

- A. Informational Signs:
 - 1. Painted signs with painted lettering, or standard products.
 - 2. Size of signs and lettering to be as required by regulatory agencies or as appropriate to usage.
 - 3. Colors to be as required by applicable regulatory agencies, or otherwise of uniform colors throughout job as selected by Owner's Representative.
 - 4. Erect informational signs at locations necessary to provide required information.

B. Quality Assurance:

1. Sign painter with professional experience in type of work required.
2. Finishes and painting adequate to resist weathering and fading for scheduled construction period.
3. Maintain temporary signs and supports in neat, clean condition; repair damages to structure, framing and sign.
4. Relocate informational signs as required by progress of work.
5. Repair any damage to permanent structures or finishes caused by placement or removal of temporary signage.

2.9 SCAFFOLDING

- A. Provide scaffolding, ramps, runways, platforms, guardrails, stairs and ladders as required by job conditions.

2.10 LIFTING AND HOISTING

- A. Provide hoists, cranes or other lifts as required for material handling.
- B. Contractor shall be responsible for determining need, providing appropriate equipment, coordinating installation and location with Engineer and Owner, and maintaining properly throughout use.

2.11 CONSTRUCTION BARRIERS

- A. Provide construction barrier around material storage and construction areas to prevent unauthorized access.

2.12 DEBRIS CONTROL

- A. Maintain areas under Contractor's control free of unnecessary debris.
- B. Initiate and maintain a specific program to prevent accumulation of debris at construction site, storage and parking areas or along roads and haul routes.
 1. Provide containers for deposit of debris.
 2. Prohibit overloading of trucks to prevent spillage on access and haul routes.
 3. Provide periodic inspection of traffic areas to enforce requirements.
- C. Schedule periodic collection and disposal of debris as indicated. Provide additional collections and disposal of debris whenever periodic schedule is inadequate to prevent accumulation. All debris is to be removed from the site and base and properly disposed of.

2.13 POLLUTION CONTROL

- A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by discharge of noxious substances from construction operations.
- B. Provide equipment and personnel, perform emergency measures required to contain any spillage, and to remove contaminated soil or liquids. Excavate and dispose of contaminated earth off site and replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters. Prevent disposal of wastes, effluence, chemicals or other substances adjacent to streams or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants. Prevent toxic concentrations of chemicals. Prevent harmful dispersal of pollutants into atmosphere.

2.14 TEMPORARY FACILITIES

- A. Construction (If Required):
 - 1. Structurally sound, weathertight, with floors above grade.
 - 2. Insulated space.
 - 3. Portable office may be used.
 - 4. Provide necessary HVAC, lighting, plumbing and sewer.
- B. Storage Sheds: As required to serve the needs of the stored items. Sheds shall be constructed to protect the products stored within. Products that could be damaged by environmental conditions shall be appropriately protected by the Contractor and shall be replaced if damaged by storage conditions provided by Contractor.

2.15 DRINKING WATER

- A. Furnish potable water for all personnel connected with Work, water as available in the existing building may be used.
- B. Pipe or transport to keep clean and fresh.

PART 3 - EXECUTION**3.1 GENERAL**

- A. Comply with applicable requirements specified in Division 22 & 23 – Plumbing & Mechanical, and in Division 26 - Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

3.2 PREPARATION

- A. Review site conditions and factors which affect construction procedures and construction facilities, including adjacent properties and public facilities which may be affected by execution of the Work.

3.3 INSTALLATION

- A. Comply with applicable requirements of each Specification Section.
- B. Maintain and operate systems to assure continuous service. Modify and extend systems as work progress requires.
- C. Install facilities of neat and reasonable, uniform appearance, structurally adequate for required purposes. Maintain during entire construction period.
- D. Prior to start of Work at project site, install enclosure fence with locked entrance gates.
- E. Construct or locate construction offices and sheds on proper foundation, with utility connections, provide steps and landing at entrances.
- F. Locate a thermometer in a convenient location, out of direct sunlight.
- G. Locate construction offices and sheds as directed by Owner.

3.4 MAINTENANCE

- A. Provide cleaning and maintenance of construction office, sheds, furnishings, and equipment as required.

3.5 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Completely remove barricades when construction has progressed to point that they are no longer required, and when approved by Owner's representative or Engineer.
- D. Remove construction office and sheds including foundations and contents at completion of the project.
- E. Grade site to required elevation and clean the area.
- F. Replace any landscaping damaged by Contractor's operations

END OF SECTION