

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, protection of the Work, and water control.
- C. Construction Facilities: Access roads, parking, progress cleaning, project signage, and temporary buildings.
- D. Temporary Equipment

1.2 RELATED SECTIONS

- A. Section 01 77 00 - Contract Closeout: Final cleaning.

1.3 TEMPORARY ELECTRICITY

- A. Cost: By Owner; connect to Owner's existing power service. Do not disrupt Owner's use of service. Owner will pay cost of energy used. Exercise measures to conserve energy.
 - 1. Provide temporary electric feeder from existing building, electrical service at location as directed. Do not disrupt Owner's use of service.
 - 2. Complement existing power service capacity and characteristics as required.
 - 3. Contractor is to field verify adequate existing power. If project requires additional power not available on site, contractor to provide at no additional cost to Owner.
- B. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- C. Provide main service disconnect and over current protection and meter at convenient location.
- D. Permanent convenience receptacles may be utilized during construction. Damage done to receptacles and cover plates during construction period shall be repaired and or replaced.
- E. Provide adequate distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting.

01 50 00-1

1.4 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain incandescent lighting for construction operations to achieve a minimum lighting level of 2 watt/sq ft.
- B. Provide and maintain 1 foot candle of lighting to the exterior staging and storage areas after dark for security purposes.
- C. Provide and maintain 5-foot candles of lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may be utilized during construction.

1.5 TEMPORARY HEATING

- A. Contractor is to provide and pay for heating devices and heat from electric utility or gas utility as needed to maintain specified conditions for construction operations until project is substantially complete as determined by the Architect and/or Owner. Contractor to make ready permanent heating system to supply heat to building as soon as system is tested and operational and pay for operation of permanent heating system until project is substantially complete as determined by Architect and/or Owner. Prior to operation of permanent equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated, and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts. Contractor is to double filter at return air during construction. Refer to Specification Division 23 for additional requirements during construction. **The warranty period shall not begin until Certificate of Substantial Completion is issued.**
- B. Maintain minimum ambient temperature between 50- and 70-degrees F during working hours and 35 degrees F at other times in areas where construction is in progress, unless indicated otherwise in product sections.

1.6 TEMPORARY COOLING

- A. Utilize Owner's existing and/or new cooling plant may be used when it becomes available. Extend and supplement with temporary cooling devices as needed to maintain specified conditions for construction operations. The warranty period shall not begin until Certificate of Substantial Completion is issued.
 - 1. Owner will pay cost of energy used. Exercise measures to conserve energy. Provide separate metering and reimburse Owner for cost of energy used. Enclose building prior to activating temporary cooling in accordance with the Exterior Enclosures article in this section.

01 50 00-2

- B. Prior to the operation of permanent equipment for temporary cooling purposes, verify that installation is approved for operation, equipment is lubricated, and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.
- C. Just prior to turning the building or portions of building over to owner, contractor will replace all filters on equipment that was used for temporary ventilation, heat, or cooling during construction. Double-filter at return air during construction.
- D. Maintain maximum ambient temperature of 80 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.

1.7 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Utilize existing ventilation equipment as they become available. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.

1.8 TELEPHONE SERVICE

- A. Contractor to have cellular telephone service at time of project mobilization.
- B. Equipment is to remain in operation until project substantial completion is issued.

1.9 FACSIMILE/COMPUTER E-MAIL SERVICE

- A. Provide, maintain and pay for computer to contractor's field office at time of project mobilization.
- A. Equipment is to remain in operation until project substantial completion is issued.

1.10 TEMPORARY WATER SERVICE

- A. Owner will provide water from existing water source (i.e. hose bibb) Exercise measures to conserve water. If additional water demand becomes necessary, the contractor will be responsible for providing and paying for temporary service. Contractor to verify existing water sources are available and adequate for his needs prior to bid date.

1.11 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain the required facilities and enclosures. Existing facility use is not permitted. Provide at time of project mobilization. Maintain disposal service on a weekly basis and more often as required.

1.12 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways if required per International Building Code Section 3306 and as required by governing authorities for public right-of-way and for public access to existing buildings.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.13 FENCING

- A. Construction: Commercial grade chain link fence.
- B. Provide a minimum 8-foot-high fence around construction site per requirements of International Building Code Section 3306; equip with vehicle and pedestrian gates with locks. The contractor shall be responsible for compliance with this requirement.

1.14 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment. Remove ice and snow as necessary for safety and proper execution of work.
- B. Protect site from puddling or running water.
- C. The contractor is to comply with the provisions of Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended, AR Ann. 8-4-101 et seq.), and the Federal Clean Water Act [33 U.S.C. 1251 et seq.]

1.15 EXTERIOR ENCLOSURES

- A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.
- B. Provide temporary partitions to separate work areas from Owner occupied areas, to prevent penetration of dust and moisture into Owner occupied areas, and to prevent damage to existing materials and equipment.

- C. Temporary Construction: Framing with contractor's option of reinforced polyethylene, plywood, or gypsum board sheet materials unless more specifically called for on drawings, with closed joints and sealed edges at intersections with existing surfaces. At locations adjacent to occupied spaces temporary wall construction to be gypsum board.

1.16 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, top of cavity walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting them with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.
- G. In cold weather, protect work from damage from frost and freezing. In hot weather, protect work from rapid drying out.
- H. Protect previously placed work by suitable coverings or other protection during installation of subsequent work. Immediately clean off any foreign materials accidentally deposited on finished surfaces and where such would stain, corrode, or otherwise disfigure work.
- I. Support no runways, ramps, or construction equipment on, nor transport over any items or assemblies subject to displacement, disfigurement, or other damage to finished surfaces.
- J. Brace all construction to prevent damage or failure from wind.

1.17 SECURITY

- A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

01 50 00-5

1.18 ACCESS ROADS

- A. Construct and maintain temporary roads accessing public thoroughfares to serve the construction area.
- B. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets. Streets shall be cleaned on a regular basis of mud and gravel soiled as a result of construction activities. Local requirements shall also be followed by maintaining cleanliness of streets.
- E. Existing on-site roads may be used for construction traffic. Contractor will be responsible for repairing any damage to existing roads as a result of construction traffic. Road inspection shall be conducted prior to beginning construction by Owner, Architect, and Contractor.

1.19 PARKING

- A. Parking at the SW corner of the West parking lot, the south row of the DEN parking lot and the SE corner of the East parking lot will be reserved for construction parking. Beyond this need arrange for or provide temporary gravel surface parking areas to accommodate construction personnel.
- B. When site space is not adequate, arrange for additional off-site parking.
- C. Do not allow vehicle parking on existing pavement during school day, except as identified in paragraph A.

1.20 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site weekly, or more often if needed, and dispose off-site.
- E. Open free fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

01 50 00-6

1.21 PROJECT IDENTIFICATION

- A. Construction Manager to provide wind screen panels at both east and west job site areas with architect, school district and engineer's company name and logos and project title. Wind screen panel to be 6' tall x 12' long minimum.
- B. No other signs are allowed without Owner permission except those required by law.

1.22 FIELD OFFICES AND SHEDS

- A. Office: For use by Contractor and Architect/Engineer, Weather tight, with lighting, electrical outlets, phone facsimile machine, heating, cooling, and restroom and janitor service, and equipped with meeting table with minimum 10 chairs, marker board, drawing rack, and drawing display table. An adequate size trailer will also be acceptable. The Field Office is to remain the property and/or responsibility of the Contractor.
- B. Provide space for Project meetings, with table and chairs to accommodate all anticipated persons attending.
- C. It shall be the Contractor's responsibility to secure placement for field office staging and material storage areas either on or off site for the accomplishment of the construction and to pay any associated fees.

1.23 TEMPORARY EQUIPMENT

- A. Contractor is to provide temporary elevators, hoists, walks, ramps, ladders, runways, scaffolding, shoring, bracing, and other equipment required for proper progress of project work.
- B. Each subcontractor is to provide proper equipment necessary to perform and complete work associated with his trade.

1.24 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, and all other temporary items prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing and permanent facilities used during construction to original or specified conditions as indicated on drawings and specifications.

PART 2 PRODUCTS Not Used.

PART 3 EXECUTION Not Used.

END OF SECTION

01 50 00-7