

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 01 10 00 "Summary" for work restrictions and limitations on utility interruptions.
 - 2. Section 01 57 23 "Temporary Storm Water Pollution Control" for storm water requirements during construction.
 - 3. Section 31 23 19 "Dewatering" for disposal of ground water at Project site.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, District, Architect, testing agencies, and authorities having jurisdiction.
- B. District' existing water system and electric power is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations. Allow other entities to use temporary services and facilities without cost, including, but not limited to, District, Architect, testing agencies, and authorities having jurisdiction.

1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Provide for District review and approval. Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Storm Water Pollution Prevention Plan: Provide Storm Water Pollution Prevention Plan per Section 01 57 23 "Temporary Storm Water Pollution Control".
- C. Water Pollution Control Plan: Provide Water Pollution Control Plan per Section 01 57 23 "Temporary Storm Water Pollution Control".
- D. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.
 - 1. Describe delivery, handling, and storage provisions for materials subject to water

- absorption or water damage.
2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Moisture-Protection: Protect materials and construction from water absorption and damage. Protect during delivery, handling, and storage. Discard water-damaged materials, mitigate water intrusion into completed Work, and replace water damaged Work.
- C. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before District's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8-inch-OD top and bottom rails. Provide concrete or galvanized-steel bases for supporting posts.
 1. Provide securely fastened continuous screening fabric on portable chain link fence.

2.2 TEMPORARY FACILITIES

- A. District Field Offices. Provide one field office for the project as follows and include as Additive Alternate. See Section 01 23 00, Alternates, for more information.
 1. Field Office: The field office, its toilet rooms and its equipment are for the District's exclusive use. Provide a 20' x 44' trailer for use by the Project Inspector, Construction Manager, Controls Personnel and other District personnel. Provide meters for all utilities. Provide a UFER ground, 5/8" x 8' ground rod connected to the ground buss in the field office electrical panel with a #6 solid CU conductor. The trailer shall contain two (2) 10' x 12' and two (2) 10' x 8' private offices with locking doors, one 5' x 5' utility room with sink, and one (1) 20' x 15' conference room. The field office shall be installed and completely

furnished within two weeks of the Notice to Proceed. This field office must remain on site during the entire Project and cannot be removed without prior written authorization from the District. The trailer layout and location shall be approved by the Construction Manager. It shall remain fully operational until Final Completion. This office shall be of substantial waterproof construction, heated, air-conditioned, with adequate natural light and ventilation, tied down, and resting on temporary foundations adequate for normal office loading. The Design-Build Entity shall provide and mount a 2' x 4' sign containing the PROP S & Z logo provided by the District and entitled "SDUSD Construction Office". The windows shall be operable, tinted on the exterior, and equipped with window blinds. The exterior door shall have access to the outside with landings, stairs, a key-type lock, and a deadbolt key lock. Both the window and door glass shall be protected with bars. Notify the Project Inspector forty-eight (48) hours prior to the date of hook-up of temporary utilities. All facilities described here shall be either in a new or like new condition and shall remain the property of the Design-Build Entity. If the facilities are not new, the facilities shall be in a condition acceptable to the District. Service, repair and maintain facilities (including, but not limited to, utilities, garbage and cleaning services) in good working order.

2. Toilet Rooms: The field office shall have two (2) toilet rooms with toilet accessories as required by applicable law. Each toilet room shall have a locking door and be equipped with a water closet with tank (also with toilet tissue dispenser, toilet seat cover dispenser) and a lavatory with water service, soap dispenser, and hand-towel dispenser. Maintain the toilet rooms in a neat, clean, and orderly manner, and refill all consumables.
3. Equipment: Provide six (6) 30" x 60" office desks, five (5) tables satisfactory for the study of plans, two (2) vertical plan racks, six (6) desk chairs with wheels and arms, and sixteen (24) standard chairs, two (2) 4' x 10' conference tables, two (2) legal size horizontal type lockable 6-drawer and three (3) legal size horizontal type lockable 2-drawer filing cabinets with keys, one (1) large and six (6) small bookshelves, one (1) utility supply cabinet, seven (7) waste paper receptacles, three (3) private telephone lines, two (2) telephone answering devices, adequate electric lights, and bottled drinking water dispenser with paper cups. Design-Build Entity shall provide seven (7) hands free speaker type telephones distributed as follows: one in each office, one in the conference room and remaining jacks/phones located at the Construction Manager's direction. Service and supply one (1) multifunction printer/scanner/fax/copier (Canon Image Runner 3235 or equal). Multifunction printer shall scan in color. Multifunction printer shall print/copy/scan paper sizes of 8½ x11, 8½ x14 and 11x 17. Provide a service plan and supplies including paper and toner for multifunction printer. Provide DSL/cable service to the field office (or high speed wireless if DSL is not available). The field office shall allow for eight (8) District computers and printers. The Ethernet jacks shall be distributed as follows: one (1) in each office, two (2) in the conference room, and one (1) in common area for multifunction printer. Provide DSL/cable connection and necessary hardware for a minimum of six (6) District computers to simultaneously access the Internet and for users to login to District's VPN to utilize District resources. The District's DSL/cable service shall be separate from the Design-Build Entity's jobsite network. The DSL/cable service provided by the Design-Build Entity shall have the minimum connection speed of a 1.5 Mbps – 6 mbps downstream, 384 Kbps up-stream and have a static IP address for the sole and exclusive use by the District. Provide six (6) parking spaces dedicated for District use adjacent to the field office. All equipment and furnishings described here shall be provided in either a new or like-new condition and shall remain the property of the Design-Build Entity. If equipment is not new, the equipment shall be in a condition acceptable to the District. Service, repair and maintain equipment in good working order.

B. Design-Build Entity's Field Office and Sanitary Facilities:

1. The Design-Build Entity's Field Office shall be equipped with lockable entrances, operable windows and serviceable finishes, and heating and ventilation on foundations adequate for normal loading. It shall also contain adequate space for a conference table

with sufficient seating for up to ten (10) persons. Provide the required sanitary facilities, wash facilities and drinking water as necessary to meet all required codes and regulations.

- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations. Store combustible materials away from building(s).

PART 3 - EXECUTION**3.1 INSTALLATION, GENERAL**

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Connect to existing service.
- B. Water Service: Connect to District's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to District. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- D. Electric Power Service: Connect to District's existing electric power service. Maintain equipment in a condition acceptable to District.
- E. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Provide temporary lighting for pedestrian and vehicular pathways where affected by construction.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Provide construction for temporary offices, shops, and sheds located within construction area.
 - 2. Maintain support facilities until Final Completion.
- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

- 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- C. Parking: Propose locations for construction personnel in site plan.
- D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
- 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
- E. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
- 1. Project Identification Sign: Provide Project identification sign as indicated on Drawings.
 - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 - 3. Maintain and touchup signs so they are legible at all times.
- F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 01 73 00 "Execution." Comply with requirements specified in Section 01 74 19 "Construction Waste Management and Disposal."
- G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
- 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- H. Existing Elevator Use: Use of District's existing elevators will be permitted, provided elevators are cleaned and maintained in a condition acceptable to District. At Substantial Completion, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life.
- 1. Do not load elevators beyond their rated weight capacity.
 - 2. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator car and entrance doors and frame. If, despite such protection, elevators become damaged, engage elevator Installer to restore damaged work so no evidence remains of correction work. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.
- I. Existing Stair Usage: Use of District's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to District. At Substantial Completion, restore stairs to condition existing before initial use.
- 1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.
- 3.4 TREE, PLANT, AND IRRIGATION SYSTEM PROTECTION
- A. Take all measures necessary to protect existing trees, plants and irrigation that is to remain.

Measures include, without limitation, substantial barricades to prevent damage. Maintain existing plant materials within the area of Work that are to remain, including periodic watering, trimming, and weeding. Install temporary fencing located to protect vegetation and irrigation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

- B. Inspect the irrigation system with the Project Inspector to determine existing conditions prior to commencement of Work. Repair, replace, or correct damage to existing irrigation system and plant materials caused by Design-Build Entity operations without adjustment to the Contract Time or the Contract Price. The repair, replacement, or correction of existing plant materials and irrigation system shall bring both to their original condition prior to construction, as determined by the Project Inspector.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Section 01 10 00 "Summary."
- C. Stormwater Control: Comply with requirements specified in Section 01 57 23 "Temporary Storm Water Pollution Control."
- D. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Obtain extended warranty for District. Perform control operations lawfully, using environmentally safe materials.
- E. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel.
- F. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- G. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
 - 1. Provide and maintain temporary barricades at all hazardous areas to protect both pedestrians and vehicles at all times. This protection shall be for students, faculty and all others at both offsite and onsite work. Adjust and relocate barricades as necessary for protection as work progresses to different locations. Areas that require barricades

include but are not limited to such things as trenches, changes to sidewalks/driveways and projections above ground.

- H. Temporary Egress: Maintain temporary egress from existing occupied facilities as required by authorities having jurisdiction.
- I. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- J. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
 - 1. Prohibit smoking on District property.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.6 MOISTURE AND MOLD CONTROL

- A. Design-Build Entity's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.

3.7 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Design-Build Entity. District reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 77 00 "Closeout Procedures."

END OF SECTION 01 50 00

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