**NOTES TO ARCHITECT/ENGINEER (A/E) & DAS/CS PROJECT MANAGER:**

This version of the Division 01 General Requirements is for **ALL** CT Department of Administrative Services (DAS) Construction Services (CS) **Design-Bid-Build (DBB) AND Construction Manager at Risk (CMR) Capital Construction Projects.**

**IMPORTANT NOTE: Section 01 50 00 Temporary Facilities and Controls** includes, but is not limited to, administrative and procedural requirements for identification badges, parking stickers, construction facilities, and temporary controls, including temporary utilities, support facilities, field offices and storage and security and protection, construction barriers, and project sign. **Edit paragraphs carefully** to reflect specific project requirements or delete them if they do not apply.

**TEXT:** The below **blue text** is project specific information that must be completed by the A/E as applicable to the specific project. When complete change **blue text** to **black text.** The ***bold and italicized text*** is for example purposes only and must be modified and edited by the A/E to make it project specific. For **text boxes**, left click on **Insert** and then insert project specific information over the word **Insert** in the underlined space.

**TABLES:** To view the Table Grid in this MS Word document, click inside any table, then go to the **Table Tools > Layout** tab, **Table** group, and click **View Gridlines.**

**HEADERS: The header** for each page of the Project Manual shall match the format, font (Arial), size (9 pt), font style (BOLD & CAPITALIZED) and line borders, of the header shown herein. The header of each page shall contain the Section Number, the Section Title, and the page number & number of pages as shown herein.

**FOOTERS: The footer** for each page of the Project Manual shall match the format, font (Arial), size (9 pt), font style (BOLD & CAPITALIZED) and line borders, of the footer shown herein. The footer shall contain the project number in the right hand side as shown herein. The revision date in the left side of the footer is to remain as it is for Department informational purposes only and should not be altered by the Architect/Engineer.

**SECTIONS AND PARAGRAPHS:** If a **Section** is not part of the project scope, **do not use** the Section in the General Requirements. Check “**NOT USED**” in the Table of Contents. **DO NOT delete** the Section title from the Table of Contents.

If a **Paragraph** is not applicable to the project, **delete the contents** of the Paragraph and renumber the subsequent Paragraphs. Edit **Paragraphs** carefully to reflect specific project requirements. DO NOT include Paragraphs or parts of Paragraphs in the project manual, which have no applicability to the specific project. KEEP IN NUMERICAL SEQUENCE and re-number as necessary.

**GENERAL CONDITIONS:** Please review the General Conditions carefully and coordinate the requirements of those Articles including the Definitions.

**DIVISION 01 SECTIONS** are the organizational key of the Project Manual. All revisions to this Division are the responsibility of the A/E. Division 01 must be closely coordinated with Division 00, Divisions 02 through 49, Division 50 (Project-Specific Available Information), the Drawings, and the Department’s Consultant Bid Data Statement (Form 6005, to be filled out by the A/E for bidding).

**IMPORTANT NOTE REGARDING FORMATTING:**

Insert a blank page at the end of all *odd numbered* specification sections that states “THIS PAGE INTENTIONALLY LEFT BLANK”.

**DELETE ALL RED NOTES.**

# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

### **A.** Drawings and general provisions of the Contract, including Division 00 General Conditions of the Contract for Construction for Design-Bid-Build and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

### This Section includes requirements for identification badges, parking stickers, construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.

### Temporary utilities include, but are not limited to, the following:

NOTE: Modify list below to suit specific project requirements.

#### **Temporary water service and distribution.**

#### **Temporary electric power and lighting services.**

#### **Temporary heating, cooling and ventilation**

#### **Temporary telephone service and data.**

#### **Temporary sanitary facilities, including drinking water.**

#### **Storm and sanitary sewer.**

#### **Storm water pollution control.**

### Support facilities include, but are not limited to, the following:

NOTE: Modify list below to suit specific project requirements.

#### **Field offices – Contractor, Subcontractor, Owner, and Construction Administrator.**

#### **Storage and fabrication sheds.**

#### **Temporary roads and paving.**

#### **Dewatering facilities and drains.**

#### **Temporary enclosures.**

#### **Temporary lifts, hoists and elevator use.**

#### **Temporary project identification signs.**

#### **Temporary exterior lighting.**

#### **Collection and disposal of waste and cleaning.**

#### **Temporary Environmental Controls.**

#### **Stairs.**

### Security and protection facilities include, but are not limited to, the following:

NOTE: Modify list below to suit specific project requirements.

#### **Temporary fire protection.**

#### **Permanent fire protection.**

#### **Security for site and Agency.**

#### **Barricades, warning signs, and lights.**

#### **Enclosure fence.**

#### **Security enclosure and lockup.**

#### **Protection.**

#### **Environmental protection.**

#### **Traffic ways.**

#### **Identification badges for Contractor’s personnel & parking stickers.**

## RELATED SECTIONS

### **A.** Division 01 Section 01 57 30 "Indoor Environmental Control" for additional provisions governing temporary heating, ventilating and air conditioning.

## 1.4 SUBMITTALS

NOTE: Include requirements for submittal of installation drawings of critical temporary utilities, if required.

### **A. Temporary Utilities:** Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.

### **NOTE:** Delete the requirement below on projects of short duration and on small projects with few temporary utility

### **B. Implementation and Termination Schedule:** Within **twenty-one (21)** days of the date established for commencement of the Work, submit a schedule indicating implementation and termination of each temporary utility.

## 1.5 QUALITY ASSURANCE

### **Regulations:** Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

NOTE: Modify list below to comply with specific project regulations. Include requirements governing storm drainage, disposal of excess excavation and waste material, and similar regulations.

#### **Building and fire code requirements.**

#### **Health and safety regulations.**

#### **Utility company regulations.**

#### **Police, fire department, and rescue squad rules.**

#### **Environmental protection regulations.**

#### **Americans with Disabilities Act.**

NOTE: If Owner has made environmental impact commitments, attach copies or indicate where they may be examined.

### **Standards:** OSHA. Comply with NFPA 241 "Standard for Safeguarding Construction, Alteration, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA 200 "Recommended Practice for Installing and Maintaining Temporary Electric Power at Construction Sites."

#### **1. Electrical Service:** Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."

### **Inspections:** Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

## PROJECT CONDITIONS

NOTE: Revise below to minimize temporary use of permanent utilities or insert exceptions to provisions. Discourage attempts to delay activation of standpipes and sprinklers.

### **Temporary Utilities:** Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, the Construction Administrator will direct the change over from use of temporary service to use of permanent service.

### **Conditions of Use:** Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

# PART 2 - PRODUCTS

## 2.1 MATERIALS

### **General:** Provide new materials. If acceptable to the Architect, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.

NOTE: Delete materials that are not required. Add materials as necessary to suit project. Edit sizes of materials.

### **Lumber and Plywood:** Comply with requirements in Division 06 Section 06 10 00 "Rough Carpentry."

#### For signs and directory boards, provide 3/4-inch exterior grade, Grade A-B Fir plywood. Mount sign on preservative treated Fir posts.

##### **a.** Project sign shall be 4' x 8' painted and supported on 4-inch x 4-inch posts, of a design to be provided by the Owner via the Construction Administrator.

#### **Vision Barriers:** Provide minimum 1/2-inch thick exterior plywood.

#### For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch thick exterior plywood.

NOTE: Delete 2 paragraphs below if mobile or prefabricated office units are specified. The Architect will provide details on the drawings for sufficient detail.

### **Paint:** Comply with requirements of Division 09 Section 09 91 00 "Painting."

#### **1.** For sign and directory boards applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer unless otherwise indicated.

### **Tarpaulins:** Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.

### **Water:** Provide potable water approved by local health authorities.

NOTE: Delete paragraph below if wood fence or covered walkway is used. For more security, increase fence height to 8 feet (2.5 m) or more etc. or decrease.

### **Enclosure Fencing:** Provide 0.120-inch thick, galvanized 2-inch chain link fabric fencing six (6) feet high galvanized steel pipe posts, 1-1/2 inches knuckle both bottom and top I.D. for line posts and 2-1/2 inches I.D. for corner posts.

## 2.2 EQUIPMENT

### **General:** Provide new equipment. If acceptable to the Architect, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.

#### The Contractor shall furnish tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and similar work or material necessary to insure convenience and safety in the execution of the Contract except where this is otherwise specified in any Specification Section. All such items shall meet the approval of the Owner but responsibility for design, strength and safety shall remain with the Contractor. All such items shall comply with Federal OSHA regulations and applicable codes, statutes, rules and regulations, including compliance with the requirements of the current edition of the "Manual of Accident Prevention in Construction" published by the Associated General Contractors (AGC) and the standards of the State Labor Department.

#### Staging, exterior and interior, required for the execution of this Contract, shall be furnished, erected, relocated if necessary and removed by the Contractor. Staging shall be maintained in a safe condition without charge to and for the use of all trades as needed.

NOTE: Delete equipment that is not required. Add equipment as necessary to suit specific project requirements.

### **Water Hoses:** Provide 3/4-inch, heavy-duty, abrasion-resistant, flexible rubber hoses with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge and backflow preventers.

### **Electrical Outlets:** Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.

### **Electrical Power Cords:** Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

NOTE: Modify paragraph below to suit specific project requirements.

### **Lamps and Light Fixtures:** Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.

### **Heating Units:** Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed.

NOTE: Modify paragraph below to add stricter requirements when conditions warrant.

### **Temporary Field Offices:** Provide prefabricated or mobile units with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.

NOTE: Delete paragraph below when fixtures connected to previously installed water and sewer service must be used.

### **Temporary Toilet Units:** The Agency will allow the toilets located in **[****Insert]** for Contractor use. If others are needed, provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

### **Fire Extinguishers:** Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.

#### **1.** Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

# PART 3 - EXECUTION

## 3.1 INSTALLATION

### Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

### Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

NOTE: The following paragraphs are to be used when a Stormwater Pollution Permit is required.

### **Storm Water Pollution Control:**

### **NOTE:** Insert Specification Section number for reference to the Stormwater Pollution section

#### The **Architect/Engineer** shall electronically register the Connecticut Department of Energy and Environmental Protection’s (DEEP) "General Permit for the Discharge of Stormwater and Dewatering Wastewater from Construction Activities" (DEEP-WPED-GP-015) and Stormwater Pollution Control Plan (SPCP) through the **DEEP** **ezFile Portal**. The SPCP is attached to technical Section 31 20 05 “Sedimentation and Erosion Control”.

#### **2.** Once under contract, and prior to construction activities, the Contractor shall assume responsibility for storm water pollution control and conform to the General Permit obligations and requirements. The Contractor shall sign, and cause to be signed by each appropriate Subcontractor, the “Contractor Certification Statement” section of the SPCP and the DEEP “License Transfer Form” (DEEP-APP-006), as directed by the Architect/Engineer. The signed Certification Statement and License Transfer Form shall be attached to the “on-site” SPCP and submitted to the DEEP by the Architect/Engineer.

#### **3.** The Owner shall be responsible for the General Permit registration fee and License Transfer notification fee.

#### **4.** The Contractor shall retain an updated copy of the SPCP at the construction site from the date construction is initiated at the site until the date construction at the site is completed.

#### **5.** The Contractor shall conform to the SPCP or use another plan, prepared at the Contractor's expense, which has been approved by the Owner and the DEEP *prior to construction activities*. The Contractor shall be responsible for implementing, maintaining, and updating the SPCP, including, but not limited to, performing regular inspections, conducting and reporting all stormwater monitoring activities, retaining records for the required period of time, and performing ***all*** post-construction measures and inspections.

#### **6.** The Contractor shall ensure all post-construction measures are installed, cleaned, and functioning and the site has been stabilized for at least **three (3) months** following the cessation of construction activities in order for the project to be considered complete. A site is considered stabilized when there is no active erosion or sedimentation present and no disturbed areas remain exposed for **all phases**. Once the site has been stabilized for at least three (3) months, the Contractor shall have the site inspected by a Qualified Inspector to confirm final stabilization. If stabilized, the Contractor shall submit a Notice of Termination (DEP-PED-NOT-015) to the DEEP in order to terminate the Construction Stormwater General Permit.

#### **7.** The Contractor shall submit a final copy of the SPCP, the Notice of Termination, and all inspection records to the Architect/Engineer and DAS/CS Project Manager at completion of all post-construction measures.

#### **8.** The Contractor shall retain copies of the SPCP and all reports required by the General Permit, and records of all data used to complete the registration for the General Permit, for a period of at least five (5) years from the date that the project is complete. Inspection records must be retained as part of the SPCP for a period of five (5) years after the date of inspection.

#### **9.** For sites involving total soil disturbance of less than one (1) acre, the Contractor shall be responsible for sediment and erosion control and utilize best management practices as identified in the “2002 Connecticut Guidelines for Soil Erosion and Sediment Control” (DEEP Bulletin 34), as amended, and any sediment and erosion control plans prepared for the project.

## 3.2 TEMPORARY UTILITY INSTALLATION

### **A. General:** Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.

#### Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.

#### Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.

#### Obtain easements to bring temporary utilities to the site where the Owner's easements cannot be used for that purpose.

NOTE: Retain subparagraph below to prevent extra cost to owner.

#### **Use Charges:** If cost or use charges for temporary facilities are specified by this section to be borne by the Owner the cost or use charges for temporary facilities will be borne not longer than **thirty (30)** days after final acceptance of the project.

NOTE: Add provisions for work not in contract but served by temporary facilities, if required.

NOTE: Amplify paragraphs below by adding or deleting provisions to suit project requirements.

### **B. Temporary Water Service and Distribution:**

#### Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.

##### **Sterilization:** Sterilize temporary water piping prior to use.

NOTE: Use appropriate paragraph below that is applicable to the project. Delete paragraphs that are not applicable.

#### Water for construction purposes may be taken from the existing service. The Contractor shall provide connections, approved backflow prevention device, meter and pipe to the water main or nearest hydrant, subject to the approval of the Owner. Upon completion of work, the Contractor shall remove the temporary connections and backfill if necessary. If new water service is installed before construction is complete, the new system may be used provided it is returned to the Owner in as-new condition. The Contractor shall pay for the water used, as metered.

NOTE: If Owner will pay for water, use the below paragraph and delete paragraphs that are not applicable.

OR:

#### **2.** Connect to existing facilities, through an approved backflow prevention device; extend branch piping with outlets so that water is available by use of hoses. Owner will pay for water used. The Contractor shall not waste water or use faulty equipment. The Contractor shall provide, at his own expense, all connections, extensions and other apparatus required for use of such services. Upon completion of the Contract, the Contractor shall disconnect temporary extensions and return utility to its original condition.

NOTE: Modify paragraph and subparagraph below to include special power loads, such as continued operation of the existing facility, while power changeover is being made.

### **C. Temporary Electric Power and Lighting Services:**

#### Power and lighting may be taken from the power company's nearest pole with temporary poles, if needed, to extend the line to project. If permanent power lines have been installed before beginning project, then temporary lines can be brought in from the last pole.

#### Provide service required for construction with branch wiring and distribution boxes located to provide power and lighting by construction-type extension cords. Meter shall be provided and installed by the Contractor.

#### The Contractor shall pay all costs of temporary power and light.

OR

NOTE: If work involves an existing facility, the following may be used if approved by the Agency. If paragraph below is used then delete the above 3 paragraphs, if not delete paragraph below.

NOTE: Modify subparagraph below to suit project if underground service must be provided, if not delete. If items 1 through 3 are deleted renumber items below if used.

OR:

#### **Power Distribution System:** Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 Volts, ac 20 Ampere rating, and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.

NOTE: Insert additional provisions for power distribution to suit project requirements.

#### **Temporary Lighting:** When overhead floor or roof deck has been installed, provide temporary lighting with local switching. Install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system. Provide temporary lighting that will provide adequate illumination for construction operations and traffic conditions.

NOTE: Paragraph below includes typical requirements.

### **Temporary Heating, Cooling and Ventilating:**

NOTE: Paragraph below includes general requirements.

#### Provide temporary heat required by construction activities for curing or drying of completed installations or for protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.

NOTE: Modify paragraph below as necessary. LP-gas or fuel oil heaters are commonly used. Steam or hot-water heaters, gas-fired space heaters, or electric unit heaters are also often used.

##### **Heating Facilities:** Except where the Owner authorizes use of the permanent system, provide vented, self-contained, LP-gas or fuel oil heaters with individual space thermostatic control.

NOTE: Usually retain subparagraph below. Gasoline burning and salamander heating units are usually prohibited.

##### Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.

##### **NOTE**: Edit the below paragraphs for project specific requirements.

##### **HVAC Equipment:**

##### The Contractor’s use of the existing HVAC system during construction is prohibited. The Contractor shall provide and pay for supplemental HVAC cooling devices, as needed, to maintain specified cooling conditions during the Work and in such a manner as to prevent damage to the existing(s) building or new building(s) and their systems.

##### **OR:**

##### The Owner authorizes Contractor’s use of existing HVAC system to maintain specified cooling conditions during the Work. The Owner shall pay cost of energy used. Contractor shall exercise measures to conserve energy.

##### When the Owner authorizes Contractor’s use of existing HVAC system during the Work and the existing HVAC system is determined to be temporarily insufficient or inoperable to maintain specified the cooling conditions, then the Contractor shall provide and pay for supplemental HVAC cooling devices as needed and in such a manner as to prevent damage to the existing building(s) or new building(s) and their systems.

##### The Contractor shall change all HVAC filters in existing system serving area of Work at end of Project.

#### Provide temporary heat during construction for interior areas included in the Contract to counteract low temperatures or excessive dampness. Maintain during said period or periods until final completion of the Contract, unless otherwise approved by the Owner in writing. Windows, doors, ventilators and similar openings shall be temporarily closed. Provide heat and ventilation to maintain specified conditions for construction operations and to protect materials and finishes from damage by temperature or humidity. The permanent heating system is not to be used for temporary heating unless approved, in writing, by the Owner. If approved, use of the permanent heating system by the Contractor does not constitute beneficial use by the Owner. The warrantee for said system will not commence until Substantial Completion is granted. Costs shall be paid by the Contractor. See individual Sections for temperature/humidity limits. Temporary heating methods shall comply with OSHA regulations and other applicable codes, statutes, rules and regulations and shall be approved by the Architect/Engineer and Owner.

#### Permanent air handling equipment, when used for temporary heating, shall be equipped with disposable "construction" filters. The construction filters shall have an average efficiency at least equal to the filters specified under Division 23, but not less than 30 percent when tested in accordance with ASHRAE 52.2 "Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size." The filters shall have an average arrestance of not less than 90 percent efficiency on one (1) micron size particles. Before turning over the system for final acceptance, the contractor shall remove and dispose of the construction filters; clean the ductwork; spray clean the heating and cooling coils, and drain pans to "like new" condition; and install the filters specified in Division 23 Section 23 40 00 "HVAC Air Cleaning Devices."

#### The Contractor may use the existing heating system with temporary extensions, radiators or unit heaters, but such use is subject to the Owner's approval. Coordinate use of existing facilities with Owner. Provide additional, temporary extensions and units to satisfy the criteria given in the preceding paragraph. Owner will pay cost of energy used. Take measures to conserve energy. At the termination of construction, return the facilities to their original condition. Before operation of permanent facilities, verify that installation is approved for operation and that filters are in place.

NOTE: If applicable to the project, and if steam is available, use the following paragraph and delete above paragraph.

#### Steam from the Agency's lines shall be metered and paid for by the Contractor at a price approved by the Agency and Owner. The Contractor shall arrange with his Heating Subcontractor to install and maintain temporary piping, radiators or unit heaters, reducing valves, steam traps and other necessary fittings and accessories. Traps shall be provided to prevent steam from entering main returns. The temporary layout shall meet the approval of the Architect/Engineer. Condensate meter (or meters) shall be installed to record usage of steam.

#### **Note:** Add the following sentence **[blue bold text]** when steam is supplied free. Delete sentence if not applicable.

#### **[Steam from the Agency's lines will be furnished to the Contractor without cost, but may be discontinued if use is unreasonable or wasteful.]** At the termination of construction, return the facilities to their original condition.

#### **NOTE:** Revise below to suit project requirements.

#### Refer to Section 01 57 30 “Indoor Environmental Control” for additional requirements regarding means and methods of providing temporary heating, cooling and ventilating. Meet manufacturer’s standards for minimum and maximum temperatures and humidity governing installation of materials and systems.

### **Temporary Telephone Service and Data:** Provide temporary telephone service throughout the construction period for all personnel engaged in construction activities. Install telephone on a separate line for each temporary office and first aid station. Contractor shall provide telephone service in his office and separate telephone service in the DAS/CS Office and Construction Administrator’s Office, if provided. It is preferred that the Contractor use a cellular phone. Basic service and local calls will be paid for by the Contractor. Toll calls will be paid for by the respective users.

#### **Separate Telephone Lines:** Provide additional telephone lines for the following:

NOTE: Modify list below to suit project requirements.

##### Where an office has more than **two (2)** occupants, install a telephone for each additional occupant or pair of occupants.

##### Provide dedicated telephone lines for a separate fax machine in both the Contractor’s office and the DAS/CS / CA office.

#### At each telephone, post a list of important telephone numbers.

NOTE: Paragraph below provides for normal disposal of liquid wastes.

### **Temporary Sanitary Facilities, Including Drinking Water:** Temporary sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

#### Provide toilet tissue, wash basins with water, soap and paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material. The Contractor shall maintain the facilities in a sanitary condition.

NOTE: Retain paragraph below unless facilities can be connected to local water and sewer lines.

#### **Toilets:** The Contractor shall install self-contained chemical toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted. Provide separate facilities for male and female personnel.

NOTE: Usually retain subparagraph below.

#### **Water Coolers:** Where power is accessible, provide electric hot/cold water coolers to maintain dispensed cold water temperature at 45 to 55 degrees F. Provide bottled water service and cup supplies and maintain in a clean sanitary condition.

### **Storm and Sanitary Sewer:** If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully.

NOTE: Modify subparagraph below to suit project.

#### Filter out excessive amounts of soil, construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.

#### Connect temporary sewers to the municipal system, as directed by sewer department officials.

#### Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.

NOTE: Retain subparagraph below if connection to a municipal sewer is permitted. Modify if connection must be made to a private system.

### **Storm Water Pollution Control:** Provide earthen embankments and similar barriers in and around excavations and sub-grade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

NOTE: Insert gas or other utility services and ventilation or humidity control as required.

## 3.3 SUPPORT FACILITIES INSTALLATION

### **A.** **General:** Locate field offices, storage sheds, and other temporary construction and support facilities in designated area as shown on the Contract Documents. The location of the trailers on the Drawings is diagrammatic in nature. Final placement of the trailers is to be approved by the Construction Administrator.

#### **1.** Maintain support facilities until Final Completion. Remove prior to Final Completion with permission from the Owner.

### **Field Offices:** Provide insulated, weathertight temporary offices of sufficient size to accommodate required office personnel at the Project Site. Keep all offices clean and orderly, sweep weekly and remove rubbish on a daily basis. Furnish and equip offices as follows:

#### The Contractor shall provide an office for their own use and a method to contact them by e-mail and telephone at any point and time.

NOTE: Select either OPTION “A”, “B’, or “C” below. DELETE the other two (2) options not applicable to this Project.

ALSO DELETE the bold blue text [OPTION “A or B, or C”] in brackets.

OPTION A: This subsection below is for Agencies providing space in an existing building. Typically Projects less than $2,500,000 when the Agency can provide space. Add or delete items of furniture or supplies as needed.

NOTE: Also, check with the DAS/CS Project Manager and Agency if the following paragraph can be used for alteration, renovation or rehabilitation projects.

#### **2. [OPTION “A”] State User Agency Provided Field Offices:** The State User Agency will furnish, without charge, **one (1)** room for the Contractor’s use as an office in an existing building. The Owner and Construction Administrator will share space with the Contractor. The Contractor shall provide and install a 5-lb ABC fire extinguisher and an approved first aid kit. The Contractor shall be responsible for furniture and shall keep this area clean and return it to its original condition after use. The Contractor shall provide the following furniture and Equipment, which will remain his property. The furniture may be used but shall be in good condition as judged by the Owner and Construction Administrator.

NOTE: Revise subparagraph below by updating, adding, or deleting equipment items, furniture, and supplies examples as needed.

|  |  |
| --- | --- |
| **2.1** | **The Contractor shall provide a lockable chemical toilet(s) with toilet tissue for the owners’ use. The Contractor shall maintain the facility in a sanitary condition. (See 01 52 19 Temporary Sanitary Facilities).** |
| **2.2** | **One (1) Lockable, double-pedestal, office desks, each with an executive chair.** |
| **2.3** | **One (1) Plan tables.** |
| **24** | **One (1) Plan racks.** |
| **2.5** | **Six (6) Conference chairs and a conference table (approx. 5 feet x 12 feet).** |
| **2.6** | **One (1) Side tables (approx. 3 feet x 5 feet).** |
| **2.7** | **One (1) Wall mounted, cork display boards (4 foot x 6 foot).** |
| **2.8** | **One (1) Wall mounted, white, wipe-off board, with markers (3 foot x 4 foot).** |
| **2.9** | **Two (2) File cabinets (lockable four drawer letter size).** |
| **2.10** | **Two (2) Bookshelves each with 10 linear feet x 12 inch wide shelving.** |
| **2.11** | **Two (2) Large capacity waste receptacles.** |
| **2.12** | **One (1) Plain paper, Fax Machine with dedicated telephone line approved by Owner.** |
| **2.13** | **Two (2) Telephones with telephone lines and voice mail.** |
| **2.14** | **One (1) Telephones lines (dedicated to computer use) with high-speed Internet connection (minimum of DSL or cable modem service).** |

NOTE: The DAS/CS PM and Architect shall edit & revise and all subparagraphs below by updating, adding, or deleting additional hardware or software examples as needed for the Specific Project.

**3. Field Office Computer System**

The Contractor shall provide **Insert number of computers** Field Office Computer System(s) for the Department’s exclusive use for each field office specified. The Contractor has the option to provide **either** a desktop **or** a laptop computer system in accordance with the minimum requirements listed below.

3.1 Field Office Desktop Computer System:

|  |  |  |
| --- | --- | --- |
| **.1** | **Processor:** |  |
| **.2** | **Memory:** |  |
| **.3** | **Hard Drive:** |  |
| **.4** | **Optical Drive:** |  |
| **.5** | **Ports:** |  |
| **.6** | **Network/Wireless:** | Ethernet or wireless card to be compatible with the selected internet and office network connections; |
| **.7** | **Graphics:** |  |
| **.8** | **Monitor:** |  |
| **.9** | **Keyboard:** |  |
| **.10** | **Mouse:** |  |

**OR:**

**3.1 Field Office Laptop Computer System:**

|  |  |  |
| --- | --- | --- |
| **.1** | **Processor:** |  |
| **.2** | **Memory:** |  |
| **.3** | **Hard Drive:** |  |
| **.4** | **Optical Drive:** |  |
| **.5** | **Ports:** |  |
| **.6** | **Network/Wireless:** | Ethernet or wireless card to be compatible with the selected internet and office network connections; |
| **.7** | **Graphics:** |  |
| **.8** | **Display:** |  |
| **.9** | **Battery:** |  |
| **.10** | **External Monitor:** |  |
| **.11** | **External Keyboard** |  |
| **.12** | **External Mouse:** |  |
| **.13** | **Miscellaneous:** | One compatible port replicator with AC adapter, one additional AC adapter, one DC adapter and one padded carrying case |

**4. Computer Software:**

The Contractor shall provide software for the computer system in accordance with the minimum requirements listed below.

|  |  |  |
| --- | --- | --- |
| **4.1** | **Operating System Software:** |  |
| **4.2** | **Productivity Software:** |  |
| **4.3** | **Security Software:** |  |
| **4.4** | All software shall include the most current updates and patches at the time the computer system is provided to the Owner. The Contractor shall provide for installation of updates and patches for the operating system, productivity and security software during the term of use of the computer system by the Owner. Updates and patches shall be provided by an automatic update method. | |
| **4.5** | The Owner may install and maintain proprietary software on the computer in order to run the Owner’s construction management programs. | |

5. Miscellaneous Computer Requirements

The initial condition of the computer system shall be nearly pristine. All owner-installed e-mail accounts, games, spyware, online services, applications, network or other profiles previously set up on the system shall be removed prior to placement in the field office. If the system was provided for a previous DAS/CS contract, all software not specified shall be removed prior to placement in the current field office.

**5.1** The Contractor shall provide an uninterruptible power supply (UPS), minimum **Insert** VA, **Insert** Watts and full time surge suppression for each field office computer system specified in this Section.

**5.2** The Contractor shall provide all cables, connections and software required to connect the field office computer system to the printer and the scanner.

**5.3** When more than one computer system is specified for a field office, the Contractor shall provide either an Ethernet or wireless office network to allow all computer systems in the field office to access the field office internet service, the printer and the scanner.

**5.4** The Contractor shall provide appropriate dust covers for all field office desktop computer systems.

**5.5** The Contractor shall provide all manuals necessary for operation of the computer system and software with the system and shall include all documentation normally furnished with the equipment and software when purchased.

**5.6** The Owner will be utilizing the computer system to run or access Owner provided construction management software applications. These applications are known to run on Intel and AMD compatible equipment when using the Windows **Insert** operating system. If the Owner experiences problems running these applications due to hardware or software compatibility, the Contractor shall replace the equipment to ensure compatibility to the satisfaction of the Owner within **five (5)** business days.

**5.7** The computer system shall be maintained in good working order. If a portion of the system becomes defective, inoperable, damaged, or stolen, that portion shall be repaired or replaced within **five (5)** business days after the Contractor is notified by the Owner. If the computer system and related accessories are not maintained by the Contractor as required, the Owner may withhold partial payments until the computer system is operational to the Owner’s satisfaction.

### **Field Office Internet Service:**

The Contractor shall provide broadband internet service for the field office. Broadband internet service shall be capable of a minimum average upload speed of **Insert** unless otherwise approved by the Owner.

#### When the Contractor supplies the trailer(s) they shall equip each trailer with a water cooler for hot and cold water.

**OR:**

NOTE: The subparagraph below is for Projects typically between $2,500,000 and below $5,000,000 that requires a field office trailer. Add or delete items of equipment items, furniture, and supplies examples as needed.

If the subparagraph below is used, DELETE the bold blue text [OPTION “B”] in brackets.

#### **[OPTION “B”]** **Owner and Construction Administrator’s Field Offices / Equipment:** The Contractor shall provide a field office for the Owner and Construction Administrator. The field office shall be ***one (1) single wide trailer 12’ x 60’****.* The trailer shall have to be in “new condition” as determined by the Construction Administrator. ***The trailer shall have a minimum of two (2) offices, each with a minimum of 150 square feet each, and a main meeting area***.The trailers shall have ample natural light, heating of sufficient capacity to maintain 70 degrees (F) in winter and air conditioning of sufficient capacity to maintain 75 degrees (F) in summer. The operational noise level of the supplied HVAC systems shall be low enough so as not to impede the conducting of meetings. The Contractor shall provide a 5-lb. ABC fire extinguisher and an OSHA- approved first aid kit. The Contractor shall provide the following furniture, and equipment which will remain his property. The furniture may be used but shall be in good condition as judged by the Owner and Construction Administrator.

NOTE: Revise subparagraph below by updating, adding, or deleting equipment items, furniture, and supplies examples as needed.

|  |  |
| --- | --- |
| **2.1** | **The Contractor** **shall provide a lockable chemical toilet(s) with toilet tissue for the owners’ use. The Contractor** **shall maintain the facility in a sanitary condition. (See Section 01 52 19 Temporary Sanitary Facilities).** |
| **2.2** | **Two (2) Lockable, double-pedestal, office desks, each with an executive chair.** |
| **2.3** | **Two (2) Plan tables.** |
| **2.4** | **Two (2) Plan racks.** |
| **2.5** | **Ten (10) Conference chairs and a conference table (approx. 5 feet x 12 feet).** |
| **2.6** | **Two (2) Side tables (approx. 3 feet x 5 feet).** |
| **2.7** | **Two (2) Wall mounted, cork display boards (4 foot x 6 foot).** |
| **2.8** | **Two (2) Wall mounted, white, wipe-off board, with markers (3 foot x 4 foot).** |
| **2.9** | **Four (4) File cabinets (lockable four drawer letter size).** |
| **2.10** | **Two (2) Bookshelves each with 10 linear feet x 12 inch wide shelving.** |
| **2.11** | **Two (2) Large capacity waste receptacles.** |
| **2.12** | **One (1) Plain paper, Fax Machine with dedicated telephone line approved by Owner.** |
| **2.13** | **Two (2) Telephones with telephone lines and voice mail.** |
| **2.14** | **Two (2) Telephones lines (dedicated to computer use) with high-speed Internet connection (minimum of DSL or cable modem service).** |

NOTE: The DAS/CS PM and Architect shall edit & revise and all subparagraphs below by updating, adding, or deleting additional hardware or software examples as needed for the Specific Project.

**3. Field Office Computer System**

The Contractor provide **Insert number of computers** Field Office Computer System(s) for the Department’s exclusive use for each field office specified. The Design Builder has the option to provide **either** a desktop **or** a laptop computer system in accordance with the minimum requirements listed below.

3.1 Field Office Desktop Computer System:

|  |  |  |
| --- | --- | --- |
| **.1** | **Processor:** |  |
| **.2** | **Memory:** |  |
| **.3** | **Hard Drive:** |  |
| **.4** | **Optical Drive:** |  |
| **.5** | **Ports:** |  |
| **.6** | **Network/Wireless:** | Ethernet or wireless card to be compatible with the selected internet and office network connections; |
| **.7** | **Graphics:** |  |
| **.8** | **Monitor:** |  |
| **.9** | **Keyboard:** |  |
| **.10** | **Mouse:** |  |

**OR:**

**3.1 Field Office Laptop Computer System:**

|  |  |  |
| --- | --- | --- |
| **.1** | **Processor:** |  |
| **.2** | **Memory:** |  |
| **.3** | **Hard Drive:** |  |
| **.4** | **Optical Drive:** |  |
| **.5** | **Ports:** |  |
| **.6** | **Network/Wireless:** | Ethernet or wireless card to be compatible with the selected internet and office network connections; |
| **.7** | **Graphics:** |  |
| **.8** | **Display:** |  |
| **.9** | **Battery:** |  |
| **.10** | **External Monitor:** |  |
| **.11** | **External Keyboard** |  |
| **.12** | **External Mouse:** |  |
| **.13** | **Miscellaneous:** | One compatible port replicator with AC adapter, one additional AC adapter, one DC adapter and one padded carrying case |

**4. Computer Software:**

The Contractor shall provide software for the computer system in accordance with the minimum requirements listed below.

|  |  |  |
| --- | --- | --- |
| **4.1** | **Operating System Software:** |  |
| **4.2** | **Productivity Software:** |  |
| **4.3** | **Security Software:** |  |
| **4.4** | All software shall include the most current updates and patches at the time the computer system is provided to the Owner. The Construction Manager shall provide for installation of updates and patches for the operating system, productivity and security software during the term of use of the computer system by the Owner. Updates and patches shall be provided by an automatic update method. | |
| **4.5** | The Owner may install and maintain proprietary software on the computer in order to run the Owner’s construction management programs. | |

5. Miscellaneous Computer Requirements

The initial condition of the computer system shall be nearly pristine. All owner installed e-mail accounts, games, spyware, online services, applications, network or other profiles previously set up on the system shall be removed prior to placement in the field office. If the system was provided for a previous DAS/CS contract, all software not specified shall be removed prior to placement in the current field office.

**5.1** The Contractor shall provide an uninterruptible power supply (UPS), minimum **Insert** VA, **Insert** Watts and full time surge suppression for each field office computer system specified in this Section.

**5.2** The Contractor shall provide all cables, connections and software required to connect the field office computer system to the printer and the scanner.

**5.3** When more than one computer system is specified for a field office, the Contractor shall provide either an Ethernet or wireless office network to allow all computer systems in the field office to access the field office internet service, the printer and the scanner.

**5.4** The Contractor shall provide appropriate dust covers for all field office desktop computer systems.

**5.5** The Contractor shall provide all manuals necessary for operation of the computer system and software with the system and shall include all documentation normally furnished with the equipment and software when purchased.

**5.6** The Owner will be utilizing the computer system to run or access Owner provided construction management software applications. These applications are known to run on Intel and AMD compatible equipment when using the Windows **Insert** operating system. If the Owner experiences problems running these applications due to hardware or software compatibility, the Contractor shall replace the equipment to ensure compatibility to the satisfaction of the Owner within **five (5)** business days.

**5.7** The computer system shall be maintained in good working order. If a portion of the system becomes defective, inoperable, damaged, or stolen, that portion shall be repaired or replaced within **five (5)** business days after the Contractor is notified by the Owner. If the computer system and related accessories are not maintained by the Design-Builder as required, the Owner may withhold partial payments until the computer system is operational to the Owner’s satisfaction.

### **Field Office Internet Service:**

The Contractor shall provide broadband internet service for the field office. Broadband internet service shall be capable of a minimum average upload speed of **Insert** unless otherwise approved by the Owner.

#### When the Contractor supplies the trailer(s) they shall equip each trailer with a water cooler for hot and cold water.

**OR:**

NOTE: The subparagraph below is for Projects typically exceeding $10,000,000 that require a construction trailer. Add or delete items of furniture or supplies as needed. Typically an outside Construction Administration (CA) firm is employed by DAS/CS as their Agent on site. Consult the CA for input.

If the subparagraph below is used, DELETE the bold blue text [OPTION “C”] in brackets.

#### **[OPTION “C”]** The Contractor shall provide a field office, for the sole use of the Construction Administrator and the Owner; **(1) one double-wide trailer 24’ x 60’ including connector or (2) 12’ x 60’ trailers with connector.** The trailer shall be in “new condition” as determined by the Construction Administrator***.* The trailer shall have a minimum of three (3) offices (minimum 150 square feet each), a main meeting area and a sound insulated toilet room, sink and hot and cold running water.**The trailers shall have ample natural light, heating of sufficient capacity to maintain 70 degrees F in winter and air conditioning of sufficient capacity to maintain 75 degrees F in summer. The operational noise level of the supplied HVAC systems shall be low enough so as not to impede the conducting of meetings. The Contractor shall provide a 5-lb ABC fire extinguisher and an OSHA approved first aid kit. The Contractor shall provide the following furniture, which will remain his property. The furniture may be used but shall be in good condition as judged by the Construction Administrator. The Contractor shall supply the Construction Administrator and the Owner office or trailer(s) with a water cooler for hot and cold water.

NOTE: Revise subparagraph below by updating, adding, or deleting equipment items, furniture, and supplies examples as needed.

|  |  |
| --- | --- |
| **2.1** | **The Contractor** **shall provide a lockable chemical toilet(s) with toilet tissue for the owners’ use. The Contractor** **shall maintain the facility in a sanitary condition. (See Section 01 52 19 Temporary Sanitary Facilities).** |
| **2.2** | **Four (4) Lockable, double-pedestal, office desks, each with an executive chair.** |
| **2.3** | **Four (4) Plan tables.** |
| **2.4** | **Two (2) Plan racks.** |
| **2.5** | **Twenty (20) Conference chairs and a conference table (approx. 5 feet x 12 feet).** |
| **2.6** | **Four (4) Side tables (approx. 3 feet x 5 feet).** |
| **2.7** | **Four (4) Wall mounted, cork display boards (4 foot x 6 foot).** |
| **2.8** | **Two (2) Wall mounted, white, wipe-off board, with markers (3 foot x 4 foot).** |
| **2.9** | **Eight (8) File cabinets (lockable four drawer letter size).** |
| **2.10** | **Four (4) Bookshelves each with 10 linear feet x 12 inch wide shelving.** |
| **2.11** | **Four (4) Large capacity waste receptacles.** |
| **2.12** | **One (1) Plain paper, Fax Machine with dedicated telephone line approved by Owner.** |
| **2.13** | **Four (4) Telephones with telephone lines and voice mail.** |
| **2.14** | **Four (4) Telephones lines (dedicated to computer use) with high-speed Internet connection (minimum of DSL or cable modem service).** |

NOTE: The DAS/CS PM and Architect shall edit & revise and all subparagraphs below by updating, adding, or deleting additional hardware or software examples as needed for the Specific Project.

**3. Field Office Computer System**

The Design Builder shall provide **Insert number of computers** Field Office Computer System(s) for the Department’s exclusive use for each field office specified. The Design Builder has the option to provide either a desktop or a laptop computer system in accordance with the minimum requirements listed below.

3.1 Field Office Desktop Computer System:

|  |  |  |
| --- | --- | --- |
| **.1** | **Processor:** |  |
| **.2** | **Memory:** |  |
| **.3** | **Hard Drive:** |  |
| **.4** | **Optical Drive:** |  |
| **.5** | **Ports:** |  |
| **.6** | **Network/Wireless:** | Ethernet or wireless card to be compatible with the selected internet and office network connections; |
| **.7** | **Graphics:** |  |
| **.8** | **Monitor:** |  |
| **.9** | **Keyboard:** |  |
| **.10** | **Mouse:** |  |

**OR:**

**3.1 Field Office Laptop Computer System:**

|  |  |  |
| --- | --- | --- |
| **.1** | **Processor:** |  |
| **.2** | **Memory:** |  |
| **.3** | **Hard Drive:** |  |
| **.4** | **Optical Drive:** |  |
| **.5** | **Ports:** |  |
| **.6** | **Network/Wireless:** | Ethernet or wireless card to be compatible with the selected internet and office network connections; |
| **.7** | **Graphics:** |  |
| **.8** | **Display:** |  |
| **.9** | **Battery:** |  |
| **.10** | **External Monitor:** |  |
| **.11** | **External Keyboard** |  |
| **.12** | **External Mouse:** |  |
| **.13** | **Miscellaneous:** | One compatible port replicator with AC adapter, one additional AC adapter, one DC adapter and one padded carrying case |

**4. Computer Software:**

The Contractor shall provide software for the computer system in accordance with the minimum requirements listed below.

|  |  |  |
| --- | --- | --- |
| **4.1** | **Operating System Software:** |  |
| **4.2** | **Productivity Software:** |  |
| **4.3** | **Security Software:** |  |
| **4.4** | All software shall include the most current updates and patches at the time the computer system is provided to the Owner. The Construction Manager shall provide for installation of updates and patches for the operating system, productivity and security software during the term of use of the computer system by the Owner. Updates and patches shall be provided by an automatic update method. | |
| **4.5** | The Owner may install and maintain proprietary software on the computer in order to run the Owner’s construction management programs. | |

5. Miscellaneous Computer Requirements

The initial condition of the computer system shall be nearly pristine. All owner installed e-mail accounts, games, spyware, online services, applications, network or other profiles previously set up on the system shall be removed prior to placement in the field office. If the system was provided for a previous DAS/CS contract, all software not specified shall be removed prior to placement in the current field office.

**5.1** The Contractor shall provide an uninterruptible power supply (UPS), minimum **Insert** VA, **Insert** Watts and full time surge suppression for each field office computer system specified in this Section.

**5.2** The Contractor shall provide all cables, connections and software required to connect the field office computer system to the printer and the scanner.

**5.3** When more than one computer system is specified for a field office, the Contractor shall provide either an Ethernet or wireless office network to allow all computer systems in the field office to access the field office internet service, the printer and the scanner.

**5.4** The Contractor shall provide appropriate dust covers for all field office desktop computer systems.

**5.5** The Contractor shall provide all manuals necessary for operation of the computer system and software with the system and shall include all documentation normally furnished with the equipment and software when purchased.

**5.6** The Owner will be utilizing the computer system to run or access Owner provided construction management software applications. These applications are known to run on Intel and AMD compatible equipment when using the Windows **Insert** operating system. If the Owner experiences problems running these applications due to hardware or software compatibility, the Contractor shall replace the equipment to ensure compatibility to the satisfaction of the Owner within **five (5)** business days.

**5.7** The computer system shall be maintained in good working order. If a portion of the system becomes defective, inoperable, damaged, or stolen, that portion shall be repaired or replaced within **five (5)** business days after the Contractor is notified by the Owner. If the computer system and related accessories are not maintained by the Design-Builder as required, the Owner may withhold partial payments until the computer system is operational to the Owner’s satisfaction.

### **Field Office Internet Service:**

The Contractor shall provide broadband internet service for the field office. Broadband internet service shall be capable of a minimum average upload speed of **Insert** unless otherwise approved by the Owner.

#### When the Contractor supplies the trailer(s) they shall equip each trailer with a water cooler for hot and cold water.

NOTE: Expand paragraphs below to suit project.

### **Storage and Fabrication Sheds:** Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.

#### Storage sheds for tools, materials and equipment shall be weathertight with heat, lighting and ventilation for products requiring controlled conditions.

#### Remove temporary materials, equipment services and construction before Substantial Completion.

#### Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to specified or original condition.

NOTE: Delete paragraph below for most urban sites. Permanent paving is assumed to be asphalt concrete. Revise if permanent paving is concrete.

### **Temporary Roads and Paving:** Construct and maintain temporary roads and paving to support the indicated loading adequately and to withstand exposure to traffic during the construction period. Locate temporary paving for roads, storage areas, and parking where the same permanent facilities will be located. Review proposed modifications to permanent paving with the Construction Administrator and Architect.

#### Provide paving for pedestrian access and parking for field offices.

#### Paving: Comply with Division 32 Section 32 12 16 "Asphalt Paving" for construction and maintenance of temporary paving.

#### Coordinate temporary paving development with sub-grade grading, compaction, installation and stabilization of sub-base and installation of base and finish courses of permanent paving.

#### Install temporary paving to minimize the need to rework the installations and to result in permanent roads and paved areas without damage or deterioration when occupied by the Owner.

Note: Revise subparagraph below if concrete is the permanent pavement material.

#### Extend temporary paving in and around the construction area as necessary to accommodate delivery and storage of materials, equipment usage, administration, and supervision.

NOTE: Modify subparagraph below if another material is used. If additional detail is required, expand the subparagraph.

NOTE: Paragraph below contains only basic requirements. Amplify to satisfy soil conservation district requirements.

### **Dewatering Facilities and Drains:** For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division 31 Sections. Where feasible, utilize the same facilities. Maintain the site, excavations, and construction free of water.

NOTE: Retain paragraph below. Temporary enclosures are required on most projects at some time during construction. Modify as necessary to suit project.

### **Temporary Enclosures**: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.

#### Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.

#### Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25-sq ft or less with plywood or similar materials.

#### Close openings through floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.

NOTE: Retain subparagraph below for large and high-rise projects. Provisions may be too expensive for small projects.

#### Where temporary enclosure exceeds 100-sq ft in area, use UL-labeled, fire-retardant-treated material for framing and main sheathing.

### **Temporary Lifts, Hoists and Elevator Use:**

#### Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

NOTE: Paragraph below is the simplest method of specifying temporary elevator usage. If provisions must be contained in this section, transfer provisions from Division 14 sections for elevators and cross-reference this section.

#### Refer to Division 14 Sections for elevators.

### **Temporary Project Identification Signs:** Prepare project identification and other signs of size indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative-treated wood or steel. Do not permit installation of unauthorized signs.

#### **Project Sign:** Engage an experienced sign painter to apply graphics. Comply with details to be furnished by the Construction Administrator.

##### **Temporary Tripod Frame**: For groundbreaking ceremonies only, provide a temporary tripod for the sign illustrated and described below. Make the tripod of 12 ft long 2" x 4"s (Stud Grade), beveled and bolted at the top. Provide approximately 5-ft between legs at grade. Provide a 6-ft long, 2" x 4" seat for the sign; locate 5-ft above grade and nail in place. Nail sign at four (4) places where edges intersect tripod legs. Drive a 24" long, pointed 2" x 4" stake into the earth next to each leg and nail to legs.

NOTE: If required, insert a list of required signs.

NOTE: Revise paragraph below as desired. Insert specific requirements, such as parking lot lighting and illumination of project identification sign.

##### **Project Sign:** The Contractor shall contact the Construction Administrator for the proper wording for the project sign. Fabricate sign of **3/4"** Exterior Grade A-B Fir plywood. Mount sign on preservative treated Fir posts. The Owner shall provide design, color selection and illustration of the Project Sign. Paint both sides and all edges of sign and the posts with two (2) coats of exterior, white, alkyd primer. Paint the border and letters with "bulletin" (sign) paint. Letter sizes, colors and related information are given on the illustration below. The state seal is available for download from the Connecticut Department of Economic and Community Development website, located here: <https://portal.ct.gov/DECD/Content/Tourism/03_Partner_Office/Use-the-Connecticut-Brand> Erect the sign within two (2) weeks after execution of the Contract and remove the sign within one (1) week after completion of the project.

##### **Project Sign Template:** Sign letter sizes, fonts, colors and related information are shown in the illustration available for download from the online DAS/CS Library of forms: <https://portal.ct.gov/DAS/Lists/DAS-Construction-Services-Library> **> 3000 Series - Design Phase Forms**.

### **Temporary Exterior Lighting:** Install exterior yard and sign lights so signs are visible when Work is being performed.

### **Collection and Disposal of Waste and Cleaning:**

#### Collect waste within the contract limit line from construction areas daily. Provide separate containers for proper waste recycling. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than seven (7) days during normal weather or three (3) days when the temperature is expected to rise above 80 degrees F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

#### Maintain areas under Contractor's control free of waste materials, debris and rubbish. Maintain in a clean and orderly condition.

#### Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces before closing the space.

#### Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.

#### Control cleaning operations so that dust and other particulates will not adhere to wet or newly coated surfaces.

NOTE: Add references to approved disposal methods. Cross-reference sections that specify handling of special waste material.

NOTE: Refer to governing codes, such as OSHA, EPA and USDA covering most temporary environmental controls. However, work involving alterations and additions may require more specific job-related controls; the following are examples, modify and edit as required for specific project. Confer with Project Manager and Agency for specifics text for each example used.

NOTE: Delete paragraph below only when cost considerations are paramount. Expand if specific pests, such as termites or pigeons, are known to be a problem.

### **Temporary Environmental Controls:** Contractor is to provide the following controls.

#### Rodent and Pest Control: Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be free of pests and their residues at materials.

#### Dust Control (construction and demolition).

#### Noise Control.

#### Erosion and Sediment Control.

#### Pollution Control.

#### Traffic Control.

### **Stairs:** Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished permanent stairs with a protective covering of plywood or similar material so finishes will be undamaged at the time of acceptance.

NOTE: Individual project circumstances may require use of other construction aids and miscellaneous facilities, such as walkways, scaffoldings, platforms, swing stages, ramps and bridges, incidental sheeting and shoring, demolition waste chutes, and similar construction aids. Add requirements as necessary to suit specific project requirements.

## 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION (listed in Paragraph 1.2 D)

NOTE: Modify paragraph below if it does not represent desired arrangement.

### Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Owner.

NOTE: Paragraph below specifies currently accepted requirements. Modify to suit local conditions.

### **Temporary Fire Protection:** Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations."

#### Provide and locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.

#### Store combustible materials in containers in fire-safe locations.

#### Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.

#### Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

#### The Contractor, during construction, shall be responsible for loss or damage by fire to the work of the Contract until completion. Any fire used within the structure for working purposes shall be extinguished when not in use. Bitumen or tar shall be melted on the ground only. No flammable material shall be stored in the structure in excess of amounts allowed by the authorities. No gasoline shall be stored in or close to the building at any time. The Contractor shall assign a responsible employee to be in charge of fire protection measures.

#### If an EPDM or other single-ply roof is included in the work that requires cleaning of mating surfaces of laps with gasoline, limit amount of gasoline on roof to two (2) gallons which shall be in UL listed containers. Also provide one 30 B:C fire extinguisher within 75 feet of any point on the roof.

NOTE: Retain paragraph below as required if parking stickers are required and modify if parking stickers are to be provided by the Agency rather than the Contractor for the specific project.

### **Permanent Fire Protection:** At the earliest feasible date in each area of the Project, complete installation of the permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.

NOTE: When sprinkler systems or other permanent fire-protection systems are used, add specific requirements.

### **Security for Site and Agency:**

#### Provide security program and facilities to protect work, existing facilities and the Owner and Agency’s operations from unauthorized entry, vandalism and theft. Coordinate with the Owner’s and Agency’s security program.

#### The Contractor shall be solely responsible for damage, loss or liability due to theft or vandalism.

### **Barricades, Warning Signs, and Lights:** Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

#### Provide covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings.

#### Provide temporary, insulated, weathertight closures at openings to the exterior to provide acceptable working conditions and protection for materials, to allow for temporary heating and to prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.

#### Barriers and enclosures shall be in conformance with code requirements. Do not block egress from occupied buildings unless necessary to further the work of the Contract. In this case, secure the Owners approval of an alternate egress plan.

#### See also General Conditions Article 19, “Protection of the Work, Persons and Property”.

NOTE: Delete paragraph below for restricted city and urban sites where a combination fence and covered walkway or sidewalk bridge will be used.

### **Enclosure Fences:** Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated on the Construction Documents, or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.

#### Provide chain link construction fencing with posts set in a compacted mixture of gravel and earth. Use existing fence to the extent possible.

NOTE: Retain paragraph below because the enclosure fence does not always provide adequate security against theft and vandalism.

### **Security Enclosure and Lockup:** Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Provide keys to the Construction Administrator.

#### **1.** **Storage:** Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

### **Protection:**

### Protect buildings, equipment, furnishings, grounds and plantings from damage. Any damage shall be repaired or otherwise made good at no expense to the Owner.

### Provide protective coverings and barricades to prevent damage. The Contractor shall be held responsible for, and must make good at his own expense, any water or other type of damage due to improper coverings. Protect the public and building personnel from injury.

### Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.

### Provide protective coverings for walls, projections, jambs, sills and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects and storage. Prohibit traffic and storage on waterproofed and roofed surfaces and on lawn and landscaped areas.

NOTE: For renovation, alterations & additions to existing facilities add: the following paragraph.

### Provide temporary partitions and ceilings to separate work areas from Agency-occupied areas to prevent penetration of dust and moisture into Agency-occupied areas and equipment. Erect framing and sheet materials with closed joints and sealed edges at intersections with existing surfaces.

### See also General Conditions Article 19, “Protection of the Work, Persons and Property”.

### **Environmental Protection:** Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result.

NOTE: Revise paragraphs below to suit specific project.

### **Traffic Ways:**

#### The Contractor may use on-site paved roads and parking areas but shall not encumber same or their access. Public highways shall not be blocked by standing trucks, parked cars, material storage, construction operations or in any other manner.

#### Public roads and existing paved roads, drives and parking areas on Owner's property shall be kept free from scrap or debris due to construction operations and any damage to their surface caused by the Contractor shall be repaired by him at his own expense.

#### If the work of the Contract affects public use of any street, road, highway or thoroughfare, the Contractor shall confer with the police authority having jurisdiction to determine if and how many police are needed for public safety in addition to any barriers and signals that may be needed. The Contractor will be responsible for payment of any needed police services.

NOTE: Revise example paragraphs and table below to suit specific project.

#### Access to **[****Insert]** located **[Insert]** will not be used during time periods when the school children are arriving and being dismissed. No access to the Gate will be allowed:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Monday – Friday** | **7:30** | **a.m.** | **–** | **9:00** | **a.m.** |
| **Monday – Friday** | **2:30** | **p.m.** | **–** | **3:30** | **a.m.** |

#### This time period is subject to change at the discretion of the Construction Administrator to coincide with the **[Insert]** Schedule.

### **Identification Badges for Contractor's Personnel, Visitors and Parking Stickers:**

NOTE: Retain paragraph below and modify if parking stickers are required for the specific project and modify if parking stickers are to be issued by the Contractor's rather than the Agency for the specific project.

##### The Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the Contractor and a number. As badges are assigned, a record shall be kept by the Contractor and given to the Construction Administrator and Agency Administrator. Update and correct the records of all badges issued on a semi-monthly basis.

##### Badges are to be worn on outer garment where visible at all times while at the construction site, return them to the Contractor’s field office at the end of each day and pick them up there each morning.

##### All vehicles parking in the Contractor's parking lot and those used around the site require an ID sticker. They will be issued by the Agency. Each contractor shall apply for parking stickers through the Construction Administrator no more than semi-monthly and shall keep record of all stickers issued.

## 3.5 OPERATION, TERMINATION, AND REMOVAL

NOTE: Paragraph below is important where allowances for metered use of temporary facilities have been established.

### **Supervision:** Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

### **Maintenance:** Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

#### 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.

#### Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

### **Termination and Removal:** Unless the Architect/CA requests that it be maintained longer, remove each temporary facility when the need has ended, when 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 the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

#### Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.

NOTE: Consider inserting specific removal requirements, as illustrated below.

#### Remove temporary paving not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.

#### At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:

NOTE: Check subparagraphs below for conflict or duplication with provisions in other sections, particularly Divisions 23 and 26.

##### Replace air filters and clean inside of ductwork and housings.

##### Replace significantly worn parts and parts subject to unusual operating conditions.

##### Replace lamps burned out or noticeably dimmed by hours of use.

NOTE: Review final draft of this section with owner. Advise owner how any exceptions to its provisions might translate into costs borne by owner.

**END OF SECTION 01 50 00**