

# **Schedule 56 - Building and Building Materials / Industrial Services and Supplies**

## **Pre-Engineered / Prefabricated Buildings Customer Ordering Guide**

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## **Purpose**

This purpose of this document is create a comprehensive ordering guide that assists ordering agencies, particularly contracting officers, to effectively use the GSA Multiple Award Schedules (MAS) to purchase total solutions for Pre-Engineered/Prefabricated Buildings. This Ordering Guide is not a stand-alone reference - it is recommended that the reader also become familiar with the MAS Desk Reference Version 6.1 and Federal Acquisition Regulations (FAR), 8.4 and Federal Supply Schedules. This Ordering Guide may be revised from time to time. Updates to this publication will be posted on GSA Insite /Schedule 56 Portal which can be found by accessing the following link: <https://www.gsa.gov/portal/content/104128>.

## **What are Pre-Engineered/Pre-Fabricated (Pre-Fab) Buildings?**

The most widely used form of prefabrication in building and civil **engineering** is the use of **prefabricated** concrete and **prefabricated** steel sections in structures where a particular part **or** form is repeated many times. Modular Construction can be considered a form of **Prefabricated** Construction.

**Precast** is a construction product (**mostly concrete**) produced by casting concrete in a reusable mold or "form" which is then cured in a controlled environment, transported to the construction site and lifted into place. In contrast, standard concrete is poured into site-specific forms and cured on site.

**Prefabrication** is the practice of assembling components of a structure in a factory or other manufacturing site, and transporting complete assemblies or sub-assemblies to the construction site where the structure is to be located. The term is used to distinguish this process from the more conventional construction practice of transporting the basic materials to the construction site where all assembly is carried out.

The term prefabrication also applies to the manufacturing of things other than structures at a fixed site. It is frequently used when fabrication of a section of a machine or any movable structure is shifted from the main manufacturing site to another location, and the section is supplied assembled and ready to fit. It is not generally used to refer to electrical or electronic components of a machine, or mechanical parts such as pumps, gearboxes and compressors which are usually supplied as separate items, but to sections of the body of the machine which in the past were fabricated with the whole machine. Prefabricated parts of the body of the machine may be called 'sub-assemblies' to distinguish them from the other components.

The most widely used form of prefabrication in building and civil engineering is the use of prefabricated concrete and prefabricated steel sections in structures where a particular part or form is repeated many times. It can be difficult to construct the formwork required to mold concrete components on site, and delivering wet concrete to the site before it starts to set requires precise time management. Pouring concrete sections in a factory brings the advantages of being able to re-use moulds and the concrete can be mixed on the spot without having to be transported to and pumped wet on a congested construction site. Prefabricating steel sections reduces on-site cutting and welding costs as well as the associated hazards.

**Pre-engineering** is the practice of designing a building and compiling materials to be assembled onsite. It removes the need for a contractor to source materials from multiple suppliers, as the materials will arrive onsite as a package with a plan set explaining assembly, similar to a child's building block kit. An important difference to note is that the pre-engineered building requires on-site construction.

### **Benefits of Pre-engineered/Modular Buildings Compared to Conventional Construction**

#### **Modular vs. Conventional Construction:**

A modular building is a pre-engineered structure that is flexible enough to satisfy virtually any requirement. It is usually tougher than standard drywall construction as well as its ability to be expanded, relocated, reusable, and recyclable. The primary advantage of modular/pre-engineered buildings over conventional construction is that they can save up to 35% on initial construction costs such as labor and materials.

#### **Applications:**

Office buildings, training centers, aircraft structures, schools, hangers, dormitories, dining facilities, temporary office space, restrooms, guard shacks, border stations, restrooms, mezzanines, and much more.

The chart below details some benefits of pre-engineered modular buildings:

| <b>GREENER</b>  | <b>FASTER</b>  | <b>SMARTER</b>   |
|---|--|--|
| The factory-controlled process generates less waste, creates fewer site disturbances and allows for tighter construction.   | Construction of modular buildings occurs simultaneously with site work, allowing projects to be completed in half the time of traditional construction   | Modular buildings are built with the same materials and to the same building codes and architectural specifications as traditional construction. Once assembled, they are virtually indistinguishable from their site-built counterparts.  |
| <p><b>Less Site Disturbance</b><br/>On-site traffic is greatly minimized from workers, equipment and suppliers</p>  | <p><b>Reduced Construction Schedule</b><br/>Because construction of modular buildings can occur simultaneously with the site and foundation work, projects can be completed 30% to 50% sooner than traditional construction.</p>   | <p><b>Safer Construction</b><br/>The indoor construction environment reduces the risks of accidents and related liabilities for workers.</p>   |
| <p><b>Greater Flexibility and Reuse</b><br/>Modular buildings can be disassembled and the modules relocated or refurbished for new use, reducing the demand for raw materials and minimizing the amount of energy expended to create a building to meet the new need.</p> | <p><b>Elimination of Weather Delays</b><br/>60 - 90% of the construction is completed inside a factory, which mitigates the risk of weather delays. Buildings are occupied sooner, creating a faster return on investment.</p>   | <p><b>Better Engineered Building &amp; BIM</b><br/>PMC relies on advanced BIM for visualization to assess the energy performance and identify the most cost-effective efficiency measures. PMC is ideal for the use of this technology where the construction process is already a collaboration of systems, materials and people—much like the software itself.</p> |
| <p><b>Less Material Waste</b><br/>When building in a factory, waste is eliminated by recycling materials, controlling inventory and protecting building materials.</p>  | <p><b>Built to Code with Quality Materials</b><br/>Modular buildings are built to meet or exceed the same building codes and standards as site-built structures, and the same architect-specified materials used in conventionally constructed buildings are used in modular construction projects – wood, concrete and steel.</p> | <p><b>Limitless Design Opportunities</b><br/>Modular units may be designed to fit in with external aesthetics of any existing building and modular units, once assembled, are virtually indistinguishable from their site-built counterparts.</p>  |
|   |  |  |

|  |  |  |
|--|--|--|
| <p><b>Improved Air Quality</b></p> <p>Because the modular structure is substantially completed in a factory-controlled setting using dry materials, the potential for high levels of moisture being trapped in the new construction is eliminated.</p> |  |  |
|--|--|--|

**How do I purchase Pre-Engineered/Pre-Fab Buildings from GSA?**

After agencies have determined their requirements to include the salient characteristics of the building (see below), they are ready to start the acquisition phase. GSA has a whole host of Pre-fabricated and Pre-engineered buildings available for agencies to purchase through our Multiple Award Schedules (MAS) Program.

Under **GSA Schedule 56, Building and Building Materials / Industrial Services and Supplies** the following Special Item Numbers (SIN) are applicable to pre-engineered and pre-fabricated buildings:

361 10A - Pre-Engineered and Prefabricated Buildings and Structures for Storage Solutions

361 10B - Pre-Engineered and Prefabricated Buildings and Structures for In-Plant Solutions

361 10D - Pre-Engineered and Prefabricated Buildings and Structures for Military, Disaster/Emergency Response, and Medical Facility Solutions

361 10E - Pre-Engineered and Prefabricated Buildings and Structures for Professional Facility Solutions

361 10G - Pre-Engineered and Prefabricated Buildings and Structures for Outdoor Shelter and Security Shelter Solutions

361 10H - Pre-Engineered and Prefabricated Buildings and Structures for Restroom, Shower, and Laundry Solutions

Installation solutions can be found under the following two ancillary SINs:

361 30 --- Ancillary Services relating to Pre-Engineered/Pre-Fabricated Buildings and Structures

361 32 --- Installation and Site Preparation for Pre-Engineered/Pre-Fabricated

## Buildings and Structures

361 50 --- Leasing of Pre-Engineered/Prefabricated Buildings and Structures

361-51 - Lease/Rental of Pre-Engineered/Prefabricated Restrooms and Utility Rooms

361 99 - Introduction of New Services and Products related to Pre-Engineered and Prefabricated Buildings and Structures

### **Salient Characteristics of a Building**

Below are some examples of salient characteristics that can be used to assist in determining potential requirements for buildings.

#### **Building Code Requirements:**

- International
- Federal
- State
- Local

#### **Building Framing:**

- Material
- Square Footage
- Framing
- Bay Spacing
- Eaves Heights
- Roof Pitch
- Sheeting
- Insulation
- Rod Bracing
- Wind Posts
- Columns
- Roof Beams
- Anchor Bolt Layouts
- Primary and Secondary Structural Components
- Primed Structural Components, Purlins, and Girts
- Paint Ready Material
- Design Adaptability



- Regulatory Compliance: Federal, State, Local Codes for any location

### **Roofing and Gutter Systems:**

- Pitch
- Seam
- Roof Panels
- Roofing Material
- Fall Protection for Erectors
- Warranty for Finish Panels
- Warranty Includes: all structural components...blistering, peeling, cracking or chipping
- Corrosion Protection
- Design Adaptability
- Regulatory Compliance: Federal, State, Local Codes for any location

### **Walls, Fascia Door, Lighting, Electrical, Flooring, HVAC, and Windows:**

- Personnel Doors
- Windows
- Vents
- Access Panels
- Cargo Doors
- Corrosion Protection
- Design Adaptability

### **Environmental:**

- Environmental Standards
- Erection Drawings
- Certified (drawings)

### **Service:**

- Customer Service Availability / Engineering Solutions
- On-Site Technical Representative
- Site Prep
- Installation (distance of utilities)

**Logistics:**

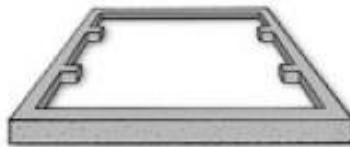
- Delivery / Shipment

**Examples of building characteristics:**

**Foundations**



**Concrete Slab**



**Curb Foundation**



**Piers**

**Frame Types**



**CRANE SYSTEMS**



**LONG SPANS**



**MEZZANINES**



**RIGID FRAME**  
Low Profile with by-pass girts



**CLEAR SPAN**  
Low Profile with insert girts



**SINGLE SLOPE**  
With by-pass girts



**RIGID FRAME**  
Modular one



**LOW PROFILE**  
Modular one



**SINGLE SLOPE**  
Modular one



**RIGID FRAME**  
High Profile with by-pass girts



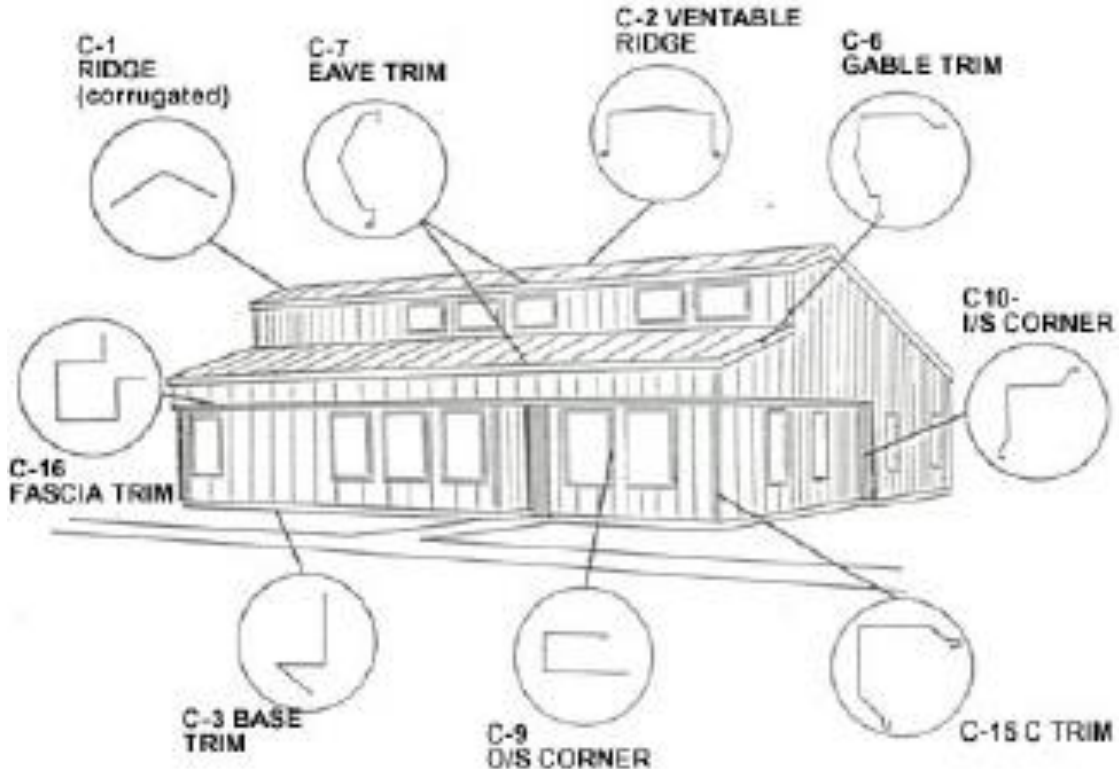
**FRAME EXTENSION**  
With insert or by-pass girts



**SINGLE SLOPE**  
With insert girts



Commercial and Industrial Trim and Flashing



**Ordering Procedures**

The Federal Acquisition Regulation (FAR) guides the correct use of the MAS Program. Ordering procedures vary based on whether or not a Statement of Work (SOW) is required. Ordering activities must use the procedures in FAR 8.405-1 when ordering Schedule contract supplies (products) and fixed-price services for a specific task, where a Statement of Work (SOW) is not required (e.g.; installation, maintenance, and repair).

For Ordering Procedures for Services Requiring a Statement of Work (SOW) (e.g., when ordering Schedule contract services priced at hourly rates), please refer to FAR 8.405-2.

**Frequently Asked Questions (FAQ)**

**1. Are temporary buildings covered under disaster recovery program?**

Yes. See SIN 361-10D for Emergency Response, 361-10A for Storage and 361-10H

for Restrooms & Laundry would probably be the most requested. Any temporary building maybe ordered under the disaster recovery program, depending on the requirements of the customer.

**2. Do pre-engineered and pre-fabricated buildings and structures include electrical wiring and plumbing?**

Yes, the buildings and structures include options that make the units fully operating buildings.

**3. Where can I point customers for assistance?**

Schedule 56 Contracting Officers can provide cursory review of Statements of Work (SOW) to ensure that the procurement is in scope of the Schedule, and ensure there are no conflicts with contract Clauses, etc.

**4. Are any of the prefabs made with sustainable materials? If so, what? If not, is there any future vision in the industry to create sustainable prefabs?**

'Sustainable' doesn't have a definite definition. We have some vendors that have buildings made from scrap metal. Ongoing initiative to get sustainable...

**5. Are any of the prefabs LEED certified?**

No buildings are LEED certified at this time

**6. Are sidewalks and utilities required to complete a project covered under any ancillary services SINS or categories?**

Sidewalks fall under SIN 361-32, installation and site preparation requiring construction. Ancillary Services, SIN 361 30, excludes construction. Utility hook up is within the scope of Schedule 56; the requirement for utility hook up is determined by the customer.

**7. What services (minor construction, ancillary repair) are included in the procurement of the prefab building?**

Any services beyond delivery of the building are not covered under the building SIN. Services must be solicited and quoted under the applicable services SIN. SIN 361 30, for ancillary services, and SIN 361 32, for installation and site preparation requiring construction are companion SINS for the buildings and structures. The applicable SIN is determined by the extent of services required to provide a turnkey solution.

**8. What types of services are excluded when hooking up a prefab building to the utilities?**

Any non-standard electrical requirement within the building.

## **9. What is included in the building itself?**

Standard and optional items vary by contract, dependent on the standard and optional items offered by the contractor. Non-contract items may can be included in a procurement as open market items. However, open market items are subject to formal price evaluation procedures.

## **10. How does GSA define "Construction", "Ancillary Repair & Alteration", and "Minor Construction"?**

Complex construction is not approved under GSA MAS contracts.

Schedule 56 includes commercial products that may require services in conjunction with the purchase of the product.

There are 3 basic types of services available:

- Ancillary Service for functions such as set up, simple installation, training, etc.(excludes construction and services subject to the Service Contract Act)
- Ancillary Repair and Alteration requiring minor construction (includes Davis Bacon and construction clauses)
- Installation and Site Preparation requiring Construction, which is necessary, to install a Pre-Engineered or Prefabricated Building or Structure, (includes Davis Bacon and Construction Clauses).

Ancillary Repair & Alteration SINs are available in conjunction with purchase of products that require minor construction to be installed properly, such as minor construction necessary to install a door or window, repair drywall, or paint a room. SIN categories are also available to provide installation and site prep requiring construction, services ordered in conjunction with purchase of products to be installed under the Schedule contract—i.e., a prefabricated building, solar energy system, roofing, generator, transformer, etc. Davis Bacon and Construction Clauses are not incorporated into Schedule 56 contracts offering installation and site preparation requiring construction and R&A. GSA negotiates fixed rates for services (rates include consideration of prevailing Davis Bacon wage rates). The applicable Davis Bacon wage determination is incorporated at the task order level, when place of performance has been determined.

## **11. Does the schedule include furniture, bathroom fixtures, kitchenettes, etc.?**

Contracts usually do not include furniture. However, it is routine to include optional bathroom fixtures or kitchenettes depending on the building and contractor. A teaming arrangement may be necessary to furnish the building or structure.

**12. What preconditions are required at the proposed site? This would include water and sewer lines, electric and gas connections etc.**

These utilities must be available at the site.

**13. If extensive site preparation is required, is this covered under the schedule?**

Site prep is covered under the installation and site preparation SINs, which cover specific products categories:

SIN 563 4 (roofing)

SIN 361 32 (pre-engineered, prefabricated buildings and structures)

361 28 (above ground storage tanks)

412 51 (alternative energy solutions, power distribution equipment)

Site preparation is limited to the immediate location of the installation, such as leveling and clearing ground, pouring a cement pad, etc.

**14. Is the foundation part of the schedule?**

Yes, a foundation is included under installation and site preparation requiring construction SINs 361 32.

**15. Since foundations are necessary, is this considered ancillary?**

A foundation is considered under installation and site preparation.

**16. Are there limits on site preparation costs?**

No, any cost/price decision is determined by the customer. GSA MAS contracts do not include a limitation at the contract or order level.

**GSA Points of Contact**

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### **Sample Statement of Objectives and Statement of Work**

When writing a Statement of Objective or Statement of Work, when possible state the purpose, rather than the specific detail. This will allow the contractor to propose based on the materials they would use, rather than the materials necessary to complete the project. This can result in lower pricing. If a specific detail is required, then list.

### **STATEMENT OF OBJECTIVES (SOO)**

**Title:** Secure Temporary Office Modular Project (STOMP)

**1.0 Purpose.** This Statement of Objectives (SOO) describes the basic objectives for the completion of a Secure Temporary Office Modular Project (STOMP). The Statement of Objectives is provided in lieu of a Government written Statement of Work (SOW). This approach provides potential offerors the flexibility to develop cost effective solutions and the opportunity to assess the offeror's understanding of all aspects of the effort to be performed by eliminating the "how to" instructions to accomplish the required effort normally contained on the SOW the government provides to prospective offerors. Teaming (teaming arrangement) with other schedule holders may be necessary to complete your proposal.

**2.0 Period and Place of Performance.** 150 days. Hill Air Force Base, Utah

**3.0 Background.** The STOMP shall have the following attributes:

- Minimum of 32,600 SQFT to house approximately 300 staff and required equipment. (Attached floor plan solution utilizes 46 trailers at 11'-10" x 60')  
252 work stations (cubicles).
- 11 private Supervisors Offices
- 3 Planning (Conference) Rooms
- 2 Men's multi-stall restrooms
- 2 Women's multi stall restrooms
- Lobby with Security Checkpoint desk

- Entry Vestibule
- 1 Men's and 1 Women's Lobby Restroom
- 1 Break Area/Kitchen
- 1 Communications Room
- 1 private MCCR (Communications Manager) Office
- 1 Receiving Bay with Rollup Door
- 1 janitor's closet
- 4 storage closets (1 in lobby)
- 1 Mechanical Room
- 1 Electrical Room

### **Specifications:**

**Basis of proposal:** Proposal is based on the statement of objectives and drawings reflected herein. It is the intent of these documents to outline the requirements for a temporary modular office complex to be factory manufactured off-site and delivered to a specified location. The contractor is also responsible to prepare the site and connect the utilities to the temporary facility.

**Transportation permits:** Transportation permits are the responsibility of the contractor.

**Performance & Payment bonds:** Performance and/or Payment bonds are required.

**Insurance:** Standard general liability and builder's risk coverage until work is complete.

**Wage rates:** Davis Bacon and prevailing wage rates and certified payroll **excluded** for manufacture, delivery and incidental work relating to installation. Davis Bacon and prevailing wage rates and certified payroll **applies** to only non-incidental work performed on site.

**Inspection approvals:** Standard base inspection protocol will be utilized.

**Close-out documents:** Standard Operating & Maintenance manuals including warranty information provided at the completion of the project.

**Codes, Design Criteria:** 2009 IBC/UFC/ADA/NEC/IPC/IMC/IECC. Buildings will be constructed to meet or exceed standards as defined in 2009 IBC Occupancy Group B, and Type V-B construction, sprinkled per UFC 3-600-1. The buildings are built in compliance with UT state modular program. The Trailer Facilities are within allowable story and floor limits for Occupancy and Type. The Trailer Facility buildings are not subject to progressive collapse requirements (less than 3 stories). The Trailer Facility structures are not subject to ATFP requirements due to both the nature of the structures (relocatable building) and duration of intended use (5 years or less) UFC 4-010-01.

**Design criteria:** Wind - 90 mph wind exposure c; sprinkled; seismic as required for HAFB, Utah; 50 psf floor load; 40 psf roof load.



**Architectural/Engineering:** Contractor shall employ the services of engineering professionals as necessary to meet design criteria and meet applicable codes.

**Frame:** Perimeter type steel c-channel, sized to meet design criteria.

**Transportation rigging:** Removed and returned to mfg.

**Floor Insulation:** R-30 no moisture barrier

**Joists:** Sized and spaced to meet design criteria

**Floor Decking:** Minimum  $\frac{3}{4}$ " T&G

**Underfloor board:**  $\frac{5}{8}$ " Plywood on underside of floor joists 3

**Floor cover #1:** Commercial carpet tiles all common staff areas, supervisor offices, MCCR, conference rooms.

**Floor cover #2:**  $\frac{1}{8}$ " Armstrong 12"x12" VCT floor tiles in bathrooms, lobby, Comm, kitchen, break area, janitors closets, Mech room, Elec room, storage closets, and hallways.

**Floor cover #3:** Recycled Tire Tread entrance flooring in Entry Vestibule. Also provide a 6'x6' area at the Side Lobby entrance.

**Base molding #1:** 4" continuous vinyl cove base- throughout building.

**Exterior Walls:** 2" x 6" wood studs spaced to meet design criteria.  $\frac{5}{8}$ " Exterior Plywood Sheathing,  $\frac{5}{8}$ " Interior Sheetrock, R-21 insulation.

**Siding:** 29 gauge  $\frac{3}{4}$ " HI Rib Metal

**Exterior trim:** To match siding.

**Perimeter Skirting:** Siding/framing to match exterior finish with chain-link security barrier buried to 12" depth below grade.

**Interior Walls:** 2x4 framing spaced to meet design criteria,  $\frac{1}{2}$ " Sheetrock, R-13 sound batts *except around Lobby and RCV Bay, where sheetrock is  $\frac{5}{8}$ " both sides.*

**Support Walls:** Utilize mid-span walls/columns in each trailer module to lighten roof beams/trusses.

**Interior finish #1:** Tape, texture to level 4 finish and paint in all areas except as noted.

**Interior finish #2:** Fiberglass reinforced panel (frp) - full height over 5/8" substrate on wet walls in restrooms, janitor's closet.

**Beams, Rafters, joists:** Sized and spaced to meet design criteria.

**Ceiling:** 2' x 2' suspended acoustic with square edge.

**Ceiling height:** nominal 9'

**Ceiling Insulation:** R-38

**Roof Sheathing:** 5/8" plywood

**Roof Joist Underside:** 5/8" Sheetrock

**Roofing:** 60 mil epdm, 20 yr material warranty

**Roof slope:** 1/8 in 12

**Rain Gutters:** Mini over Doors

**Emergency Exit:** Double 3'-0" x 6'-8" 18 gallon painted reinforced metal door w/ 16 gallon HM with center stile between doors.

- Doors shall be secured with emergency egress hardware on the inside. No exterior hardware. Egress hardware shall incorporate an integral Audible alarm which activates upon opening.
- Doors shall be equipped with an automatic, non-hold door-closer which shall be installed internal to the Facility.
- Hinges shall incorporate non-removal hinge pins

**Interior Lockable Doors (Offices, Planning, MCCR, Storage, Janitor, Comm):** 3'-0" x 6'-8" Solid Core Prefinished Wood w/ Alum Frame.

- Provide with lockable lever hardware with removable cores.
- Offices, MCCR, Comm, Planning rooms to have glazing kits.

**Interior Public Doors (Restrooms, Breakroom, Hallways):** 3'-0" x 6'-8" single or double (as shown) Solid Core Prefinished Wood w/ Alum Frame.

- Hardware to be Push-Pull with closers.
- Hallway and Breakroom doors to have glazing kits.

**Outer Vestibule Entry Doors:** Double 3'-0" x 6'-8" aluminum store front, mill bronze.

- Pull handles on exterior. Push handles in interior.
- Removable-core lock w/ integral simultaneous top/bottom latch on active leaf.
- Hinges shall incorporate non-removable hinge pins.

**Inner Vestibule Access Doors:** Double 3'-0" x 6'-8" 18 gallon painted reinforced metal door w/ full lite, 16 gallon HM frame with center stile between doors.

- Doors shall be equipped with an automatic, non-hold door-closer which shall be installed internal to the Facility
- Exit Door shall be equipped with emergency egress hardware on the inside.
- Entry Door shall have a removable-core lockable lever handle on the Lobby side. Secured side hardware shall be a passage lever.
- Hinges shall incorporate non-removable hinge pins
- Entry door shall be provided with electric strike and installed so as to accommodate Vindicator access.

**Lobby Side Door:** 3'-0" x 6'-8" 18 gallon painted reinforced metal door w/ 16 gallon HM frame as configured on drawing.

- Door shall be equipped with an automatic, non-hold door-closer which shall be installed internal to the Facility
- Door shall be equipped with emergency egress hardware on the inside.
- Door shall have a pull handle on the exterior of the door with a high security keyway for use in the event of an access control system failure.
- Hinges shall utilize non-removable hinge pins
- Door shall have glazing kit.

**Secure Access Doors (Lobby into Controlled Space): Separate** 3'-0" x 6'-8" 18 gallon painted reinforced metal door w/ 16 gallon HM frame configured as per drawing. One door is entrance to secure space. Other door is exit from secure space.

- Doors shall be equipped with an automatic, non-hold door-closer which shall be installed on the secured side.
- The exit door shall be equipped with emergency egress hardware on the secure side. No hardware on the lobby side
- Entrance door shall have a removable-core lockable latch handle installed on the lobby side of the door and a passage latch handle installed on the secure side.
- Hinges shall utilize non-removable hinge pins
- Both doors shall have glazing kits.

**Rollup Door:** 8'x 7' Insulated Rolling Door, 18 gallon minimum.

- Secure interior slide latches (both sides of door)

**Equipment Room Doors:** 3'-0" x 6'-8" 18 gallon painted reinforced metal door w/ 16 gallon HM frame configured as per drawing.

- Provide with lockable knob hardware with removable cores.

**Glazing Kit:** 6"x27" Reinforced Vision Kit where specified above.

**Windows:** 3'-0" x 4'-0" Fixed.

**Glazing:** Clear, dual glazed, low-e

**Blinds:** 1" metal at each exterior window

**Window Security:** Windows shall be protected by permanently affixed reinforced steel bars.

(a) Bars shall be a minimum of 1/2 inch diameter steel, welded vertically and horizontally six inches on center. The bars shall be welded at intersections.

(b) The bars shall be secured to a frame. This frame shall be permanently anchored to the secure-side wall with six inch anchors. Anchors shall be non-removable.

**Electrical Service:** Provide three phase 480/277 volt service for HVAC Units and Lighting. Transform down to 208/120 volt for all other loads.

**Panels:** Provide and install interior sub panels and transformers, sized per design criteria and code. Provide and install MDP as or if required. Connect sub panels to MDP or disconnects on site as required.

**Main Building panel:** Provide and install exterior/interior mounted main distribution panel (MDP) for a single point of connection ready for final utility connection.

**Service connections:** Provide and install conduit and wire to connect sub panels to MDP.

**Ground:** Provide and install service ground rod at each MDP.

**Transformers - regulators:** Provide, install and connect all necessary transformers.

**Circuit wiring:** Per code #12 awg wire or greater

**Conduit:** EMT, MC cable

**Interior lights:** 2' x 4' fluorescent 3 bulbs recessed, t-8 electronic ballasts, prismatic. All conference rooms to have dimmers for fluorescent lights.

**Exterior lights:** General purpose exterior lighting providing 360-degree facility coverage.

**Exit signs:** As required by code

**Emergency lights:** 2' x 4' fluorescent 4 bulb, recessed, t-8 electronic ballasts, prismatic diffusers with battery back-up, per code

**Receptacles:** 20 amp 125 VAC two pole 3 wire installed as per code. Also install 15 receptacles at office equipment to be locations designated by bldg. user (at drawing review stage).

**Dedicated receptacles or circuits:** Dedicated wired j-box in ceiling above fire alarm panel location prep for installed fire alarm system. Provide dedicated wired j-boxes in ceiling for cubicle power interconnection at a rate of two workstations per circuit.

**Office Furniture:** Contractor to provide and install 152 cubicle workstations and security desk workstation as per attached floor plan. Private offices and remaining workstation locations shall be roughed for data and electrical (i.e. conduits/cables/fiber) such that each location is ready for future furniture installation.

**Break Room Appliances:**

**Exterior Outlets:** Install outlets at exterior perimeter at the following locations:

- Near rollup door
- Near front entrance
- Adjacent to each HVAC unit

**Voice & data:** Provide and install boxes at 15 designated office equipment (printer, etc.) locations with home run capability (via conduits and/or cable trays) to Data/Comm Room.

Provide and install j-boxes above ceiling at all cubicle locations for interconnection to cubicle workstations. Each cubicle requires capacity for 8 cables (either copper or fiber).

Provide home run capability (via conduits and/or cable trays) to Data/Comm Room.

Provide and install j-boxes in wall at all supervisor offices. Each cubicle requires capacity for 8 cables (either copper or fiber) divided among 3 separate boxes/conduits on each of 2 designated walls in each office. Provide home run capability (via conduits and/or cable trays) to Data/Comm Room.

Provide, install and interconnect cable trays and conduits above ceiling between modular units.

**Fire Alarm:** Provide & install fire protection flow switch and other alarm devices as required by applicable codes.

**Fire Alarm Connection:** Provide devices (Monaco transmitter) to communicate fire alarm signals with Fire Department. Provide all interconnecting conduit and wiring within the building for a complete, working system.

**Fire sprinkler system:** Provide and install wet pipe fire sprinkler system to include riser and shut off valves within the building.

**Fire sprinkler system - interconnection:** Provide labor and materials to connect fire sprinkler system together to a single connection point below the floor (within the crawlspace under the fire sprinkler closet). Design shall be based on adequate water pressure being provided by customer. Testing included.

***\*Site Utilities: in the final purchase package, a site map will be included which indicates existing utility locations, distances, and conditions.***

**Fire sprinkler system connection:** Professionally size and connect building fire sprinkler riser to site water source as indicated on Site Plan. Include backflow preventer, post indicator valve, two fire hydrants, pumps, etc. as required.

**Gas Connection:** Professionally size and connect all gas-fired HVAC Units to underground gas main at location indicated on site plan.

**Electrical Utility Connection:** Bring electrical from power source to single point electrical connection (480/277 Volt) at building. This will include the necessity of a step-down transformer from the existing overhead service. Contractor to make final connection to site power source. Refer to site plan.

**Comm/Data Utility Connections:** Run 2 each 4" Conduits from Communications Room underground to a location 5' east of the Modular Complex. Cap buried underground ends. Insert pull strings in both conduits.

**Potable Water Connection:** Professionally size and connect building water system to appropriate underground water main as indicated on site plan. Include meters, pressure regulators, backflow preventers, etc.

**Site preparation:** Prepare site by grading and excavating for the foundation, utilities and new parking. Compact as required per design. Prepare SWPPP and grade site accordingly.

**Below grade concrete:** Labor and materials to provide engineered below grade reinforced concrete footings. Bottom of footings to be below frost line (30").

**Site Concrete:** Provide and install concrete steps, ramps, sidewalks, curbs, gutters, utility pads per site drawing and ADA requirements. As a minimum, site concrete work should include the following:

- Concrete stairs and landing at main entrance.
- 3' x 8' Concrete dock at Rolling Door
- Concrete handicap ramp at main entrance
- Concrete sidewalk/walkway from proposed parking lot area to main entry steps/ramp.

**Emergency exit stairs:** Provide metal (Galvanized steel or aluminum) landing and stairs with handrails at all emergency exit locations and at side Lobby Door and Equipment room door. Landings to be 5'x7'. Utilize open stair tread material for stairs/landing.

**Fire extinguishers:** As required by code

**Water lines:** PEX / copper

**Shutoff valves:** Chrome all fixtures

**Exterior faucets:** Frost proof with plumbers key

**Water line interconnections:** Make crossover connections (hot and cold water lines) at modular mainlines, as or if required

**Waste lines:** PVC schedule 40 drains & vent, individual stubs to crawl space

**Sewer manifold:** Provide labor and materials as necessary to manifold individual sewer stubs together to a single point of connection within crawl space (including clean-outs per code).

**Water coolers:** Two (2) dual height, ADA compliant, electric in areas designated by customer

**Water heaters:** Multiple electric on-demand sized appropriate for use requirements and conditions.

**Janitors sink:** Floor mounted commercial grade, includes faucet and dual handles. Brackets and shelving to hold housekeeping items.

**Toilets:** Floor mounted, flush valve, elongated bowl, vitreous china, ADA compliant

**Urinals:** Wall hung vitreous china with flush valve

**ADA grab bars:** Brushed, stainless steel, per code

**Rest room accessories:** Dual roll toilet paper holder at each toilet. Paper towel, dispensers, mirrors.

**Toilet partitions:** Baked Enamel

**HVAC:** Wall mount Gas/Electric HVAC Package Unit. Natural gas heat, 3 phase electric. Quantity and sized to be determined by Mechanical designer. In addition to the calculated building loads, 10 tons of cooling should be allotted to the Communications Room. All HVAC units to be interconnected to single HVAC emergency shutoff located at security desk.

**HVAC Security:** Vents or duct openings that penetrate the perimeter of the Facility and exceed 96 square inches shall be protected with permanently affixed bars or grills.

(a) If bars are used, they shall be a minimum of 1/2 inch diameter steel, welded vertically and horizontally six inches on center. The bars shall be welded at intersections. The bars shall be secured to a frame. This frame shall be anchored to the secure-side wall with six inch anchors.

(b) If grills are used, they shall be of 3/4 inch-mesh, #9 (10 gauge), case-hardened, expanded metal.

(c) If bars or grill are required, an access port shall be installed inside the secure perimeter of the Secure Facility to allow visual inspection of the bars or grill.

**Supply ducts:** Galvanized with exterior insulation

**Registers:** 24" x 24" adjustable manufacturer's std

**Return air:** 24" x 24" adjustable manufacturer's std

**Thermostats:** 7 day programmable with occupant override variable, include locking covers over thermostats.

**Test & balance:** Certified test and balance

**Bath exhaust:** Switched fans, sized per code.

**Counter tops:** Solid surface w/ integral sinks

**Backsplash:** Ceramic tile backsplash or equal

**Cabinets:** Base and overheads, with solid hardwood fronts

**Shelving:** Melamine covered, at storage closets

**Cleaning:** Clean entire building, remove all labels, vacuum floor, strip, 2 coats sealer and 3 coats wax on all VCT.

**4.0 Performance Objectives.** The purpose of this statement of objectives is to obtain a contractor to support the Temporary Modular Trailer Facility. Under this effort the contractor is responsible for providing all personnel, supplies, and logistics for the completion of this project. The contractor performs the required work in accordance with all industry standards and regulations.

**4.2 Subcontractor Expenditures Plan - Deliverable.** The Contractor shall prepare and deliver a Subcontract Expenditures Report that discloses actual subcontract expenditures by company name, business size standard (i.e., Woman Owned Business, Veteran Owned Business, etc.), and other socioeconomic programs (i.e., Indian Incentive Program, Historically Black Colleges and Universities and Minority Institutions, etc.). See FAR Part 19.

**4.3 Quality Assurance Surveillance Plan (QASP).** The Conductor shall establish a complete Quality Control Program (QC P) to assure the requirements of the contract are provided as specified. The QCP shall be an identifying issue in the quality of services before the level of performance is unacceptable, and should be contained within a formal written Quality Assurance Surveillance Plan which must be submitted with the vendor final proposal. The program and document shall be subject to the approval of the Contracting Officer (CO) and the Contracting Officer's Technical Representative(COTR).

**4.4 Applicable Information.** Contractor is responsible for providing:



- Recommendations for industry proven cost cutting methods, and improved performance measures under the contract.
- Effectively ensuring quality control.
- Ensure that all contractor and subcontractor personnel proposed to work on the premises under this contract are US Citizens or Naturalized Citizens and must be eligible to work on premises. Failure to comply with these requirements may result in termination of this contract or removal of some contractor's employees from facilities.

**4.5 Constraints.** Contractor shall work normal hours of 8 am to 4:30 pm Monday thru Friday. Work outside these hours must be approved in advance. Contractor must notify the Contracting Officer of any utility interruption 48 hours in advance. Normal operations of the campus must be kept in operation while the construction is being performed. The contractor must supply any temporary equipment or work needed to keep operations functioning with respect to utility interruptions. Roads and parking areas must be kept operational except for short durations and then only one lane closure is acceptable. Any damage to the Govt is the responsibility of the contractor to repair including the grounds, roadways, curbs and sidewalks. Contractor must comply with base safety and construction policies and with all state and federal safety requirements.

## **STATEMENT OF WORK (SOW)**

Statement of Work – Modular Office Space 1

### **1 – Scope of Contract**

Provide and set-up a 24' x 60' modular office. Set-up shall include blocking, leveling, seismic anchors and skirting. The contractor shall provide a permanent accessible entrance ramp and landing meeting ABA Accessibility Standards: <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/aba-standards> . Offerers shall submit with their proposal, a floor plan and complete specifications on materials and construction details to demonstrate the ability to meet the requirements herein. As an option the contractor shall install utility lines from the existing office trailer to the new modular office location including power, water, sewer, phone and data (conduit only for data and phone). Connect power, water and sewer as shown on the drawings and specified herein. As an option the contractor shall unhook all utilities from the existing office trailer leaving the stub outs in place and demolish the existing office trailer.

List of Attachments:

- VicinityMap
- Almanor District Site Plan

### **1.1 – Project Location:**

The site is located at 900 Highway 36 in Chester, CA. The contractor shall confirm the acceptability of the route to the pad.

### **1.2 – Government Furnished Property**

Government Furnished & Contractor Installed: None

Government Furnished and Government Installed:

- Data/Telecommnetwork equipment and main lines from the existing Fire Trailer
- Refrigerator

### **1.3 – Contractor Furnished Property and Submittals**

The Contractor shall furnish all labor, materials (except as listed in paragraph 1.2), equipment, supervision, and transportation necessary for the successful completion of the work described in this contract. A complete set of drawings, stamped by a California licensed engineer and specifications for products to be incorporated in the modular unit shall be submitted for approval 30 days prior to beginning production. Drawings shall include plan, elevation and detail views of the building, foundation, anchoring and skirting sufficient to determine conformance to the contract. Plans shall also include electrical load calculations so the government can ensure Pacific Gas& Electric (PG&E) has sufficient power to the meter.

### **1.4 – Utilities(Option B)**

Contractor shall be responsible for locating and protecting above and below ground utilities in the project area. At the site for the new office there used to be a residence which had water, sewer, power and LPG lines. All these utilities have been abandoned but may still be in place. The power line was an overhead line and is indicated on the site plan. See site plan for location of existing utility tie-in points.

#### **1.4.1 - Power**

Disconnect the underground conductors that feed the existing office trailer from the box on the west side of the building or from the control panel?. Provide a new PG&E approved service entrance panel on the modular office exterior wall at the location shown on the site plan. Install underground 3" PVC conduit from under the existing abandoned office trailer to the new modular service entrance panel. Conduit shall be buried at code depth with properly compacted bedding and backfill material. Where the trench is under asphalt, backfill the top 9" with 6" of compacted ¾" minus crushed aggregate and 3" of ½" minus asphalt. In all other locations, the top 6" of the trench shall be compacted ¾" minus crushed aggregate. Run proper sized conductors from the meter pedestal to the new service entrance panel.

#### **1.4.2 - Water**

Install underground water line conduit from under the existing abandoned office trailer to the new modular service entrance panel. Conduit shall be buried at code depth with properly compacted bedding and backfill material. Where the trench is under asphalt, backfill the top 9" with 6" of compacted ¾" minus crushed aggregate and 3" of ½" minus

asphalt. In all other locations, the top 6" of the trench shall be compacted  $\frac{3}{4}$ " minus crushed aggregate. Tie into existing 1-inch PVC waterline at existing service modular office. Install a new NIBCO4660-S ball valve that is reachable through a Hallmann Sales, LLC GP-100 10"x10" access door installed in the skirting. Insulate all piping with self-sealing closed cell foam tubing

#### **1.4.3 - Sewer**

Install underground sewer line conduit from under the existing abandoned office trailer to the new modular service entrance panel. Maintain a minimum of 1% slope in the new sewer line from the new modular office to the existing sewer connection under the existing abandoned office trailer. Conduit shall be buried at code depth with properly compacted bedding and backfill material. Where the trench is under asphalt, backfill the top 9" with 6" of compacted  $\frac{3}{4}$ " minus crushed aggregate and 3" of  $\frac{1}{2}$ " minus asphalt. In all other locations, the top 6" of the trench shall be compacted  $\frac{3}{4}$ " minus crushed aggregate. Tie into existing sewer line to service the modular office. Modify and extend underground line as necessary to provide a new accessible cleanout in a plastic valve box labeled "SEWER".

#### **1.4.4 – Data/Telecom**

Protect existing conduit that stubs up under the existing mobile office trailer for reuse by the government.

#### **1.5 - Use of Utilities**

Contractor may use electric, water and sanitary facilities at the project area.

#### **1.6 – Protection of Existing improvements**

Pavement, buildings, landscaping and other improvements shall be protected by the Contractor. The Contractor shall be responsible for repairing any damage to improvements.

**1.7 – Office Trailer Demolition(Option A)**Statement of Work – Modular Office Space 3  
The existing office trailer shall be removed and disposed of off the existing government property. Work includes utility disconnection, removal and disposal of office trailer.

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. The Government before start of the Work will remove hazardous materials.
2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify the CO. The Government under a separate contract will remove hazardous materials.

C. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.

1. Arrange to shut off indicated utilities with utility companies.
2. If utility services are required to be removed, relocated, or abandoned, before proceeding with building demolition provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
3. Cut off pipe or conduit a minimum of 24 inches (610 mm) below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing. Leave a t-post or lath at each utility location with a label indicating each utility so they can be located when performing the utility work for the new modular office.

### **1.8 – Modular Office Pad**

The government will provide a site that is relatively level and capable of a minimum 1500 psf bearing capacity.

### **1.9 – Modular Office Unit**

Bathroom dimensions shall be adjusted as necessary to meet accessibility standards. Below are the minimum requirements that must be met:

General:

1. Unit shall be fully accessible and meet the International Building Code. Unit shall be designed and installed to meet the snow, wind and seismic forces for the location.
2. Office area shall consist of four private offices with the balance of space being open office area for maximum flexibility.
3. Provide accessible entry door(s) as required by code with photocell metal halide security lights. Entry door(s) shall be ANSI/SDI-100, Grade III, extra heavy-duty, Model 2 + 2A, with minimum 16-gauge galvanized steel faces. Frame(s) shall be 16-gauge galvanized steel with one piece welded construction.
4. Minimum R-19 wall, R-38 roof and R-11 floor insulation or meet latest California code requirement, whichever is greater.
5. Roof shall be gable style with minimum 12 inch eaves and rakes. Provide minimum 30 year standing seam roof. Color shall be selected by the Contracting Officer from the manufacturers standard color selections.
6. Exterior siding and skirting shall be LP Architectural Collection 16 inch Double 8" Bold Profile or approved equal. Skirting shall be secured to the ground with 2" x 4" pressure treated wood rated for ground contact. Remaining framing to support skirting shall be 2" x 4" @ 16" OC and installed straight with no visible waviness in the finished skirting. Use matching LP SmartSide trim and fascia for building and skirting and LP SmartSide Soffit for the eave and rake enclosures.
7. Provide minimum ½" drywall interior with manufacturer's standard finish. Color shall be selected by the Contracting Officer from the manufacturers standard color selections.
8. Ceiling shall be heavy duty Armstrong 15/16" T-grid with Armstrong #1733, 2' x 4' x 5/8" acoustical lay-in tiles or approved equal. Any damaged components from shipping to the site shall be replaced with new.

9. Interior doors shall be NWWDA I.S.1-A solid core or better with factory finish. Color shall be selected by the Contracting Officer from the manufacturers standard color selections.

10. All door hardware shall be heavy duty commercial grade with satin chrome finish. Entrance lockset shall be Schlage ND53PD RHO 626 or approved equal. Office locksets shall be AL50PD SAT 626 or approved equal. Exterior door(s) shall have continuous weather seals and keyed alike locks. Private offices shall have locks keyed separately that will also unlock entrance door(s).

11. Windows shall be Milgard Style Line Horizontal Sliders with Suncoat Low-E glass or approved equal. Minimum size shall be 4'0" x 3'6".

12. Wall to wall carpet throughout office areas shall be minimum 26 oz. commercial grade loop pile. Install by direct glue down method. Color shall be selected by the Contracting Officer from the manufacturers standard color selections.

13. Exterior siding and trim colors shall be selected by the Contracting Officer from the manufacturers standard color selections. Paint shall be Kelly Moore, Benjamin Moore, Sherwin Williams acrylic latex or approved equal.

#### Bathrooms:

1. One Men's & one Women's fully accessible bathroom in compliance with the ABA Accessibility Standards.

2. One commercial duty toilet or approved equal per bathroom.

3. One vitreous china sink, 304 SS framed mirror, GFCI outlet, 304 SS double roll toilet paper holder and 304 SS tri-fold paper towel dispenser per bathroom.

4. Ventilation fan in each bathroom that comes on with the light and has adjustable off delay.

5. Commercial 0.080" sheet vinyl flooring. Color shall be selected by the Contracting Officer from the manufacturers standard color selections.

#### Kitchenette: (Option C)

1. Base cabinet length shall be 5 feet to include a 30" sink base with double doors and 30" base with two drawers and double doors. Leave room for a 36" government furnished refrigerator between the cabinet and the wall.

2. Matching wall cabinet length shall be 5 feet to include two 30" wide by 42" tall double door cabinets.

3. Matte finish one piece laminate countertop with bull nose drip edge and integral backsplash.

4. Single bowl stainless steel sink with soap tray, Elkay Model ECC2522 or approved equal.

5. Moen Model 7425BC Chateau single lever faucet or approved equal.

6. Cabinets shall be Armstrong Allwood in Branford style or approved equal. Wood finish to match interior doors.

7. All doors and drawers shall have brushed stainless steel wire pull handles.

8. Mounted 5 pound Type A-B-C fire extinguisher in semi-recessed wall cabinet.

#### HVAC & Plumbing:

1. Instantaneous electric water heaters mounted under all sinks.

2. Ducted high efficiency HVAC system using external wall mounted high efficiency heat pumps with economizers and auxiliary electric heat. No jump ducts allowed.

3. Ducted bathroom exhaust fans per code requirements
4. 7-day programmable thermostat with battery backup.
5. All copper or Pex waterlines. Insulate all piping with self-sealing closed cell foam tubing
6. Provide a cleanout for the trunk lines under the modular and extend to the skirting with a stainless steel Watts CO-480-RD cover or approved equal.

#### Electrical/Communications:

1. Provide T-8 2' x 4' lay-in fluorescent lighting with prismatic diffusers and electronic ballasts throughout. Lighting levels shall be appropriate for office occupancy.
2. Provide a minimum of 20 duplex wall outlets and 4 duplex floor outlets. Floor outlets shall be placed in the open space a minimum of 8 feet from any wall. All duplex outlets in office areas shall be 20A and spaced as needed to meet code.
3. Provide a 2 port data outlet (phone and data) adjacent to each duplex electrical outlet with a ¾" conduit and pull string run in the wall to above the suspended ceiling.

#### **1.10 – Final Testing**

Upon completion, the building and utility systems shall be tested in the presence of the COR to ensure all components and systems are functioning properly. Provide the COR with a 3 business day advanced notice. If installation of the utilities option is not performed contractor shall perform utility testing with a generator for the power and shall pressurize the water system using potable water from a portable water tank. During the sewer system testing use only potable water and use only enough water to ensure the system is working correctly. The water from the sewer system test may run onto the ground.

#### **2 – Time for Completion**

All work (including final clean-up) shall be completed within 60 calendar days from the issuance of the Notice to Proceed.

**APPENDIX A: SAMPLE MODULAR / PRE-ENGINEERED PHOTOS**



